TRANS-CANADA PIPE LINES LIMITED

Economic Feasibility Report Dated September 1956
With Supplements
As Prepared for Initial Financing

VOLUME I

COMMONWEALTH SERVICES • INC.

NEW YORK, N. Y. • JACKSON, MICH. • WASHINGTON, D. C. • HOUSTON, TEX.

TRANS-CANADA PIPE LINES LIMITED

Report on Economic Feasibility
Of Proposed Natural Gas Pipeline Project

SEPTEMBER, 1956

COMMONWEALTH SERVICES • INC.

NEW YORK, N. Y. • JACKSON, MICH. • WASHINGTON, D. C. • HOUSTON, TEX.

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SERVICES · INC.
NEW YORK, N.Y. · JACKSON, MICH.
WASHINGTON, D.C. · HOUSTON, TEX.

300 PARK AVENUE, NEW YORK 22, N.Y.

October 2, 1956

Mr. Francis Kernan
White, Weld & Co.
40 Wall Street
New York, N. Y.

Dear Mr. Kernan:

In accordance with your request of June 8, 1956, we have reviewed the project of Trans-Canada Pipe Lines Limited to determine its economic feasibility on the basis that initially Canadian markets only would be served.

As more fully set forth in the Report on Economic Feasibility, dated September, 1956, resulting from our review and transmitted to you herewith, it is our conclusion, based on consideration of all pertinent factors as developed and discussed in the report and subject to the assumptions used and the successful completion by Trans-Canada of certain modifications in contractual arrangements or authorizations as discussed in Subsection B of Section II of the report, that the project as presently proposed is feasible and, reflecting the purchase by the present stockholders of up to $21,000,000 of Subordinated Income Notes together with the reasonable expectation of more rapid development of sales and earning power than that forecast in the report, is economic and that the financing as proposed will provide the funds necessary to complete the project.

We call your attention to the fact that during the period covered by the financial forecasts attached as Exhibits to the report, Trans-Canada is not expected to incur any income taxes because the initial loss carryover is expected to offset later income that otherwise would be taxable. However, in this connection it is noted, as shown on page 4 of Section II, that in the hypothetical "Full Development" year the rate of return calculated on average rate base and reflecting no income tax payment, would be 8.22%. This indicates the probability of adequate earnings in subsequent years after the initial loss carryover has been exhausted and full income taxes become payable.

Additionally, we call to your attention the fact that no adjustments have been made in this report covering the exchange relationship between Canadian and United States Dollars.

It has been a pleasure to carry out this assignment for you. Also we appreciate the fine cooperation we have received from the Trans-Canada people and from those of their customer companies with whom we have talked during the course of the review.

Very truly yours,

COMMONWEALTH SERVICES INC.

W B Tippy

W. B. Tippy
President

WBT:MHD

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I. SCOPE OF STUDY

I. SCOPE OF STUDY

At the request of Mr. Francis Kernan, consultant on financing to the Board of Directors of Trans-Canada Pipe Lines Limited, Commonwealth Services Inc. has reviewed the project of Trans-Canada for the construction of a natural gas pipeline, extending from a point on the Alberta-Saskatchewan border through the Canadian Provinces of Saskatchewan, Manitoba, and Ontario, to a point north of Toronto, Ontario, and thence eastward to the Montreal, Quebec, area with a lateral line extending northward to the Ottawa, Ontario, area and southwestward to a connection with facilities of Niagara Gas Transmission Limited, near Sheridan, Ontario. The section from the Manitoba-Ontario border to Kapuskasing, Ontario, would be built by Northern Ontario Pipe Line Crown Corporation. The project also contemplates acquisition by Trans-Canada of the facilities of Niagara Gas Transmission Limited from Sheridan, Ontario, to a connection with Tennessee Gas Transmission Company at a point on the international border near Niagara Falls, New York.

The purpose of the review has been to determine the economic feasibility of the project as proposed by Trans-Canada on the basis that the project would initially serve Canadian markets only. Two alternative plans of development, described briefly below and set forth more fully in Exhibit 2 of the Appendix to this report, have been investigated:

Plan 1

The construction program referred to herein as Plan 1 assumes that only gas from the Alberta fields in western Canada will be

available to Trans-Canada to provide service to its proposed markets. In general, the proposed plan of construction by years is as follows:

<u>1956</u> - Approximately 200 miles of the western portion of the Trans-Canada line from the Alberta-Saskatchewan border toward Winnipeg, Manitoba, is expected to be completed during this construction season.

<u>1957</u> - The western portion of the Trans-Canada line from the Alberta-Saskatchewan border to the Manitoba-Ontario border, together with the portion of the Northern Ontario Pipe Line Crown Corporation section of the line from the Manitoba-Ontario border to the lakehead cities of Port Arthur and Fort William, Ontario, would be completed during this construction season and service commenced on a limited basis to customers of Trans-Canada in Saskatchewan, Manitoba, and far western Ontario.

<u>1958</u> - The balance of the Crown Corporation section of the line from the lakehead cities to Kapuskasing, Ontario, together with the entire eastern portion of the Trans-Canada project would be completed during this construction season and the line of Niagara Gas Transmission Limited, extending from Sheridan, Ontario, to the international border near Niagara Falls, New York, would be acquired, the entire Trans-Canada project going into service about November 1, 1958.

Plan 2

This alternative plan of construction assumes that, in addition to western Canadian gas from the Province of Alberta, additional temporary volumes of natural gas would become available to Trans-Canada at Sheridan, Ontario, in volumes sufficient for Trans-Canada to commence service to the Montreal, Quebec, market about November 1, 1957. In general, the alternative construction schedule would be as follows:

1956 - Approximately 200 miles of the western portion of the Alberta-Winnipeg line would be constructed, as proposed in Plan 1.

1957 - The balance of the portion of the Trans-Canada line from the Alberta-Saskatchewan border to the Manitoba-Ontario border and the portion of the Crown Corporation facilities from the Manitoba-Ontario border to the lakehead cities would be constructed, as proposed in Plan 1, and, in addition, the portions of the eastern section of the Trans-Canada project from Toronto Junction to Sheridan, Ontario, and from Toronto Junction eastward to Montreal, Quebec, would be constructed. Service to Montreal, in addition to the western markets for which service is proposed in Plan 1, would be commenced utilizing gas purchased in the east on a temporary basis and delivered to Trans-Canada at Sheridan, Ontario.

1958 - The portions of the Crown Corporation line from the lakehead cities to Kapuskasing, Ontario, of Trans-Canada's eastern section from Kapuskasing, Ontario, to Toronto Junction, and the Ottawa lateral line, would be completed on or about November 1, 1958. The taking of gas from the temporary eastern supply would be discontinued and the facilities of Niagara Gas Transmission Limited would be acquired, as proposed in Plan 1, and service to all Canadian markets attached would be commenced with western Canadian gas from the Province of Alberta.

In addition to investigating the economic feasibility of the two construction plans outlined above, an investigation has been made of the effect on the Trans-Canada project of certain sales to prospective customers in the United States, as follows:

(1) To Tennessee Gas Transmission Company at the international border near Niagara Falls, New York, on a temporary or summertime interruptible basis.

(2) To Midwestern Gas Transmission Company, at a point on the international border near Emerson, Manitoba, in substantial firm contract quantities.

As a basis for the study of feasibility of the project and to the extent permitted by the time available, Commonwealth Services Inc. has:

(1) Reviewed and studied the gas supply contracts and export authorizations of the Province of Alberta. The reports of DeGolyer and MacNaughton, having to do with the adequacy of reserves and deliverability of gas to support the supply contracts, have been relied upon without check.

(2) Reviewed the project of The Alberta Gas Trunk Line Company Limited to gather gas from various fields in Alberta for transmission and delivery to Trans-Canada at a point in Alberta near the Alberta-Saskatchewan border, having particular reference to the Dutton-Williams-Mannix engineering report on the proposed gas pipeline system in Alberta, together with a letter agreement between Trunk Line and Trans-Canada covering the cost of such gas transmission service.

(3) Reviewed Trans-Canada's assumptions and detailed estimates relating to the cost of constructing the pipeline project as proposed, together with the cost of operating and maintaining the project when completed.

(4) Reviewed Trans-Canada's sales contracts with certain of its proposed customers and information available as to the markets proposed to be served and, in the case of certain major markets, made field studies to verify existing or determine new estimates as to markets available to Trans-Canada. Markets as to which reports were available or studies were made included:

Saskatchewan Power Corporation
Plains Western Gas & Electric Company
Intercity Gas Company
Winnipeg & Central Gas Company
Northern Ontario Natural Gas Company Limited
Lakeland Natural Gas Limited

Discussions were had with company officials as to the markets of:

Union Gas Company of Canada, Limited
Interprovincial Utilities Limited

Information on Manitoba Power Corporation was obtained from officials of Plains Western Gas & Electric Company based on their studies.

Information submitted to the Federal Power Commission in exhibit form and supported by testimony was considered in connection with the requirements of the Quebec Natural Gas Corporation, supplemented by checking of certain phases of the market estimates in the field in Montreal, Quebec.

As to The Consumers' Gas Company of Toronto, the status of negotiations between Trans-Canada and this customer caused us to rely upon figures supplied by Trans-Canada, verified to the extent possible by information submitted in various cases before the Federal Power Commission by Consumers'.

With regard to about 8% of the market estimated for the 1962-63 year of operation, reliance was had without field check on Trans-Canada's estimates as to the following minor loads:

The central Ontario towns of Barrie, Orillia, etc.
The Grimsby Natural Gas Company, Limited
Provincial Gas Company Limited
Dominion Natural Gas Company, Limited
The Lake Shore Group of communities not presently included in the Lakeland Natural Gas Limited project

In most of the above instances, Trans-Canada's figures were based in general on a detailed market study report dated December 7, 1955, as prepared for Trans-Canada by Ford, Bacon & Davis, Incorporated.

A detailed report which will contain supporting data for the market estimates used in this report is in course of preparation.

(5) Determined on the basis of the market estimates, as limited by the year-to-year capacity of the Trans-Canada pipeline system as proposed, Trans-Canada's gas purchase requirements from the Alberta gas fields and the estimated cost to Trans-Canada of such gas, including both purchase cost and cost of transportation by Trunk Line to the Alberta-Saskatchewan border.

(6) Estimated revenues by the application of Trans-Canada's rates as presently proposed to the estimates of gas sales developed herein.

(7) Reviewed agreements and arrangements with the Crown Corporation relating to:

(a) The initial loan by the Crown Corporation to Trans-Canada for the purpose of providing interim financing for the construction of the Alberta-Winnipeg section of the project, and

(b) The construction by the Crown Corporation of the section from the Manitoba-Ontario border to the lakehead at Port Arthur and Fort William and continuing on eastward north of Lake Superior to a point near Kapuskasing, Ontario, together with the subsequent leasing of such section of the line by the Crown Corporation to Trans-Canada and the ultimate purchase of such section by Trans-Canada thereafter.

(8) Reviewed in general applicable Dominion and Provincial authorizations of Trans-Canada and Trunk Line.

(9) Brought together the above facts and information into a study and report on the economic feasibility of the Trans-Canada project on the basis of a plan of financing furnished by Mr. Kernan.

II. CONCLUSIONS AS TO FEASIBILITY

II. CONCLUSIONS AS TO FEASIBILITY

As a result of the review, field checks and studies generally described in Section I of this report, the details of which are set forth in subsequent sections, it is concluded, subject to the successful completion by Trans-Canada of certain necessary or desirable modifications in contractual arrangements or authorizations discussed in Subsection B of this Section II, that:

(1) As discussed more fully in Subsection A of Section VI, the modified estimate of construction cost set forth in the report for the Trans-Canada sections of the proposed project, including provision for contingencies, is adequate and construction on the schedule contemplated, reflecting all presently forseeable cost increases, should be completed within the total amount of such estimate.

(2) The modified estimate of construction cost set forth in the report for the Crown Corporation section of the line as proposed, including provision for contingencies, as discussed more fully in Subsection A of Section VI, is adequate and construction on the schedule contemplated, reflecting all presently forseeable cost increases, should be completed within the total amount of such estimate. Rentals payable to the Crown Corporation, discussed more fully in Section X, should be at rates within those estimated in this report.

(3) The cost of completing the pipeline facilities of The Alberta Gas Trunk Line Company Limited, as discussed more fully in Section V, should be within the amounts estimated, and it is assumed that

negotiations now in progress will result in transportation charges limited to the 4¢ per Mcf adopted for use in this report.

(4) The modified estimates of operating and maintenance expenses used in this report, discussed more fully in Subsection B of Section VI, are conservative and can be reasonably expected not to be exceeded. In developing the expense estimates of cost of gas purchased, the automatic annual increases in the cost of gas provided in the gas purchase contracts in their present form were fully reflected.

(5) The estimates of markets and revenues from gas sales, discussed in detail in Section VII, can be expected to be achieved and probably exceeded, in the light of competitive fuel cost differentials, industrial market potentials, present state of natural gas load development, and the general characteristics of the territory proposed to be served.

Negotiations are now in progress between Trans-Canada and The Consumers' Gas Company of Toronto which are expected to increase the firm gas contract volumes materially above the figures adopted for the report. Such increase would, in turn, increase the average price it is estimated Trans-Canada would receive for its gas since the additional firm sales would displace, at least in part, sales assumed in the report to be made at lower off-peak rates. As estimated in the report, there is on the order of 100,000 Mcf of peak-day sales capacity available in the 1962/63 operating year which it has been assumed in the report would be utilized by interruptible or off-peak sales, but which could be sold at a higher price on a firm-demand basis should such demand develop.

Assuming a hypothetical "Full Development" year in which the sales capacity of the line remains as proposed for the 1962/63 year and in which the firm loads have grown to approximately the full peak-day sales capacity of the line, the operating results are estimated to be as follows under either Plan 1 or Plan 2, as compared with the results estimated for the year 1962/63 under Plan 1 and Plan 2:

	Plan 1 Year Ending 10/31/63	Plan 2 Year Ending 10/31/63	Hypothetical "Full Development" Year	
Operating Revenues	$70,934	$72,661	$79,326	
Cost of Gas Purchased	$28,401	$29,013	$32,182	
Operations and Maintenance	5,933	5,933	5,933	
Crown Section Rental	13,064	12,324	13,230	
Taxes - General	1,365	1,365	1,365	
Total	$48,763	$48,635	$52,710	
Balance Before Depreciation and Income Taxes	$22,171	$24,026	$26,616	
Depreciation Provision	9,368	9,360	9,360	1/
Gross Income Before Income Taxes	$12,803	$14,666	$17,256	
Taxes - Income	-	-	-	2/
Gross Income	$12,803	$14,666	$17,256	
Interest - First Mtge. Bonds	$ 6,311	$ 6,311	$ 5,707	3/
- Subordinated Debentures	3,300	3,300	3,300	
- Subordinated Income Notes	623	495	495	4/
Amortization of Debt Discount & Expense	133	133	133	
Fixed Charges	$10,367	$10,239	$ 9,635	
Net Income	$ 2,436	$ 4,427	$ 7,621	
Common Shares Outstanding - End of Period	4,928,183	4,928,183	4,928,183	
Earnings Per Common Share	$0.49	$0.90	$1.55	

1/ Plan 2 depreciation assumed.
2/ Continued tax loss carry-over assumed.
3/ Year was assumed to be 12 months ending October 31, 1965, at which time additional bond retirement has taken place.
4/ Plan 2 interest assumed.

Under the above assumption, earnings in the hypothetical year before Dominion income taxes would cover interest on the First Mortgage Bonds 3.02 times and total interest, exclusive of interest on subordinated income notes, 1.92 times. Gross income before depreciation would cover interest and sinking fund requirements on the First Mortgage Bonds 2.21 times and total interest and sinking fund requirements for bonds and interest on the debentures 1.73 times. The calculated rate of return on average rate base, determined on the basis set forth in Section XII, would be 8.22%. Based on the projected continued growth of Plan 2 requirements of Trans-Canada's customers, the condition of the hypothetical "Full Development" year would be reached in the year 1964/65. However, rapid development of the Toronto requirements discussed above and possible increases in the requirements of other markets makes it appear likely that the "Full Development" year will be advanced in time and could come as much as two years earlier.

It should be noted that the figures in this report do not assume acquisition by Trans-Canada of the Crown Corporation Section of the line during the period under consideration. Assuming the existence of a reasonable money market at the time, acquisition of this Section by the issuance of additional first mortgage bonds toward the end of the first five years of operation would improve coverage on interest and sinking fund requirements, rate of return and common stock earnings.

It is therefore concluded, based on consideration of all pertinent factors as developed and discussed in this report, that the Trans-Canada project as proposed is feasible and, reflecting the purchase by the present

stockholders of up to $21,000,000 of Subordinated Income Notes together with the reasonable expectation of more rapid development of sales and earning power than that forecast in the report, is economic and that the financing as proposed will provide the funds necessary to complete the project.

Discussion of the factors relating to feasibility for the two principal plans of development studied in this report and of the effect of two potential supplements to the principal plans, is set forth below.

A. FEASIBILITY OF ALTERNATIVE PLANS

1. Plan 1

On the assumption that sales will be made to Canadian markets only and that construction and development of the Trans-Canada pipeline system will proceed as outlined under Plan 1, the following are the usual financial criteria and ratios estimated for the fifth full year of operation, assumed to be the year ending October 31, 1963:

(a) Earnings before Dominion income taxes would cover bond interest 2.03 times.

(b) Earnings before Dominion income taxes would cover total interest requirements for bonds and debentures 1.33 times.

(c) Gross income before depreciation would cover interest and sinking fund requirements on the First Mortgage Bonds 1.75 times and total interest and sinking fund requirements for bonds and interest on the debentures 1.39 times.

(d) Net earnings per share of common stock outstanding would be $0.49 per share.

(e) The capitalization ratios at the end of the period would be as follows:

Mortgage bonds	53.57%
Subordinated debentures	25.09
Capital stock and earned surplus, including subordinated income notes	21.34
Total	100.00%

(f) The calculated rate of return on average rate base, determined as set forth in Section XII, would be 5.56%.

It is believed that the results of operations set forth above relating to Plan 1 can be achieved, and probably exceeded.

2. Plan 2

Assuming that only Canadian markets are served by the pipeline but that Plan 2 for developing the project is followed instead of Plan 1, the six factors considered above will all be slightly improved and, for the same year, would become as follows:

(a) Earnings before Dominion income taxes would cover bond interest 2.32 times.

(b) Earnings before Dominion income taxes would cover total interest requirements for bonds and debentures 1.53 times.

(c) Gross income before depreciation would cover interest and sinking fund requirements on the First Mortgage Bonds 1.90 times and total interest and sinking fund requirements for bonds and interest on the debentures 1.50 times.

(d) Net earnings per share of common stock outstanding would be $0.90 per share.

(e) The capitalization ratios at the end of the period would be as follows:

Mortgage bonds	52.73%
Subordinated debentures	24.70
Capital stock and earned surplus, including subordinated income notes	22.57
Total	100.00%

(f) The calculated rate of return on average rate base, determined as set forth in Section XII, would be 6.41%.

It is believed that the results of operations set forth above relating to Plan 2 can be attained and probably exceeded.

It is entirely possible that once financing has been assured under the Plan 1 program for development of the Trans-Canada line and it thus becomes reasonably certain that the project as proposed in Plan 1 may be completed in time to have the entire project in service by November 1, 1958, the company, together with Tennessee Gas Transmission Company, may be able to obtain a decision from the Federal Power Commission authorizing the sale of gas by Tennessee Gas Transmission Company to Trans-Canada at the international

border near Niagara Falls, New York, for transmission by Niagara Gas Transmission Limited, and delivery to Trans-Canada at Sheridan, Ontario. Should such authorization, or any alternative supply of natural gas at Sheridan, become available in adequate time, it would be possible for Trans-Canada to construct the main line facilities from Sheridan, Ontario, to Montreal, Quebec, during the 1957 construction season and to institute service for a period of approximately one year, commencing about November 1, 1957, at Montreal with the gas so obtained from Tennessee, as is proposed under Plan 2. This gas from Tennessee would be replaced by western Canadian gas upon the completion of Trans-Canada's main line to Toronto Junction at about November 1, 1958. At this time, however, it cannot be predicted whether such approval will, in fact, be forthcoming and whether it will be possible in practice for Trans-Canada to construct its facilities on alternative Plan 2.

3. Possible Sales To Midwestern

Analysis of the effect on the fifth full year of operation of Trans-Canada of the company's obtaining authorization for the sale of gas to Midwestern Gas Transmission Company at a point on the international border near Emerson, Manitoba, indicates that such sale, when considered as incremental to the Plan 1 program, would be beneficial and would result in improvements to each of the six factors considered above.

Likewise, addition of the sale to Midwestern at Emerson, Manitoba, would improve the factors previously developed as a result of consideration of Plan 2.

At the present time the proposed sale at Emerson, Manitoba, is a matter of a contested hearing before the Federal Power Commission and it cannot be predicted whether or when any order of the Commission may be forthcoming disposing of the request for authorization of the sale. Neither can it be predicted whether the outcome of the request for authorization of the sale will be favorable or unfavorable, although it is believed that some arrangement for the sale of gas across the international border in the vicinity of Emerson, Manitoba, may ultimately result, even though conceivably it could be the result of some later application not presently filed or under consideration. It is, however, logical to assume that growing natural gas requirements in the upper Mississippi Valley area of the United States will at some time justify the sale of gas across the international border from Canada and that such sale may be made by Trans-Canada.

4. Possible Sales To Tennessee

Analysis of the possibility of the sale of gas by Trans-Canada, after its acquisition of Niagara Gas Transmission Limited, to Tennessee Gas Transmission Company across the international border near Niagara Falls, New York, indicates that there will probably be little or no gas available at that point on the Trans-Canada system for such sale. The proposed sale to Tennessee would have been of interruptible gas during the summer period for storage by Tennessee in its nearby underground natural gas storage facilities. However, the nature of the contract between Trans-Canada and Union Gas Company of Canada, Limited, which latter company also has substantial storage facilities, and the availability of substantial markets for off-peak

and summertime gas, particularly on the Ontario portions of the Trans-Canada line, make doubtful the availability of any gas for international export at Niagara Falls from the facilities as proposed. However, the connection between Trans-Canada and Tennessee at Niagara Falls should prove most valuable as an interchange and stand-by connection for the mutual support of service to both systems in the event of emergency conditions, assuming Federal Power Commission authority can be obtained by the parties for such interchange of gas. Because of the great length of both the Tennessee and Trans-Canada systems, such a working linkage between the two appears to be highly desirable. The proposed plan of financing provides funds for the purchase by Trans-Canada of the Niagara Falls-Sheridan line of Niagara Gas Transmission Limited.

B. MODIFICATION OF CONTRACTS OR AUTHORIZATIONS

In reaching the conclusions as to feasibility set forth in this Section II, it is assumed that certain steps now under way or contemplated by Trans-Canada to obtain necessary or desirable modifications in contractual arrangements or authorizations will be completed satisfactorily, principally the following:

(1) Modification of provisions of gas purchase contracts to bring them into conformity with Trans-Canada's presently proposed program for construction and operation. Details of these proposed changes include:

(a) Description of the Trans-Canada project. To each gas purchase contract is attached a letter, referred to as Exhibit "B" in the body of the contracts, addressed by Trans-Canada to the gas producer named as seller in the contract. This letter describes the Trans-Canada pipeline project and includes in such description a statement that a lateral is to be built to a point on the international border near Emerson, Manitoba. This lateral is not contemplated in connection with the present program being submitted for financing. The letter also contains statements as to the proposed timing of construction of various portions of the project, including a completion target date of November 1, 1957, which have been changed since such letter was written. In the body of the contracts, notably in Article II-Conditions, paragraph 2, the letter (Exhibit B) is referred to as the outline of the project upon which such gas purchase contract is based and subsequently, in paragraph 5(i), such letter is referred to as the basis for required certifications and permits and, in paragraph 5(ii), as the basis of Trans-Canada's undertaking to build the pipeline and also to obtain a certificate from underwriters stating that Trans-Canada has arranged adequate financing. It appears necessary that this letter be amended to conform to the facts as they now exist.

(b) Minimum Take-Or-Pay Provisions. A total of 24 contracts have been presented as the basis of Trans-Canada's gas supply. Two of these are designed for interim supply during construction of the project. The other 22 are long-term contracts intended to become effective as the pipeline goes into permanent operation. Comparison of the quantities of gas covered by these contracts with the maximum annual ability of the pipeline, as now proposed, to receive gas, is as follows:

Year Beginning	Approximate Annual Capacity	Minimum Annual Take-Or-Pay Volumes	Annual Volume Based On Daily Contract Quantities	Annual Volume Based On Daily Maximum Quantities
November 1, 1957	15 *	54.6	84.0	96.6
November 1, 1958	98.9	127.6	165.3	193.9
November 1, 1959	125.5	168.2	216.0	239.9
November 1, 1960	150.8	174.7	216.0	239.9
November 1, 1961	169.8	175.9	216.0	239.9
November 1, 1962	187.9	175.9	216.0	239.9

* Market; capacity exceeds this figure.

As shown on this table, the contracts cover an aggregate gas supply on a take-or-pay basis in excess of the ability of the

pipeline to receive gas during the first five years. These contracts should be amended so that the quantities of gas and the timing of deliveries will be in conformity with the presently contemplated schedule for the building up of Trans-Canada's gas requirements, without sacrificing any of the reserves committed to the project.

(c) Price Redetermination Provisions. All of these long-term gas supply contracts contain provisions, particularly in Article X - Price, requiring redetermination of the price of the purchased gas at periodic intervals. The first date for redetermination is within 60 days from January 1, 1963. The Trans-Canada project would appear in a better light if the price of gas were not subject to upward adjustment at so early a date. Because of the complexity of the Trans-Canada project and the problems to be overcome in the early years, a minimum of ten years before the first renegotiation would seem more suitable. The importance of this point is emphasized by the fact that the provisions for redetermination do not set forth standards by which adjustment of price is to be made. If these provisions could be supplemented to include a statement of the standards upon which redetermination is to be based it would also be a desirable protection to the company.

Additionally to this point, it is questioned whether the rate of return factor of 7% for Trans-Canada adopted in these contracts reflects present developments in the cost of money to a Canadian project and, also, it is thought appropriate that some provision be made for making up deficiencies contemplated in the early years in Trans-Canada's earning a full rate of return in computing adequacy of the company's earnings for the purposes of price redetermination under the rate of return clause.

(d) Voluntary Price Reductions. Another provision common to these contracts relates to voluntary price reduction by Trans-Canada to its customers. These provisions, particularly Article X, 1(vi), require an increase in the cost of gas equal to half of any reduction to a major customer in case Trans-Canada reduces its contracted price to any such customer. It is considered important in establishing a new pipeline venture that management have full leeway in adjustment of its selling price during the period of early development so as to attract loads on a competitive basis. Because of the length of time required from conception of a project to its operation, it is not possible to foresee at the start competitive factors which will control when the project actually goes into operation. A revision of this provision is important so as to permit price adjustments in sales contracts without penalty, at least until the end of a development period after the line is placed in operation.

It is understood that certain producers have already agreed to postpone the initial date for mandatory redetermination of price from January 1, 1963, to January 1, 1968. It is also understood that, until deliveries are commenced to a customer, changes may be made as to the portions of over-all contract volumes to be purchased under different sections of Trans-Canada's present rate schedule applicable to such customer without such change being considered a "voluntary price reduction" under the terms of the gas purchase contracts.

(2) Modification of the transportation agreement with The Alberta Gas Trunk Line Company Limited to spread Trunk Line's proposed construction program over a number of years and thus bring the contract gas volumes from the fields to be connected and the amount of Trunk Line's required investment in facilities into conformity with Trans-Canada's needs for gas under its presently proposed construction program and to assure Trans-Canada by means of some form of contract ceiling price that Trunk Line's transportation charges based on Trans-Canada's gas requirements will not exceed the 4¢ per Mcf figure originally contemplated by the parties. It is understood that negotiations to this end are in progress.

(3) Modification of the one-year construction program proposed for the Northern Ontario Pipe Line Crown Corporation, and similarly of the rental arrangement, to a two-year program consistent with Trans-Canada's own construction program. Under the suggested modified

construction program only the portion of the Crown Corporation facilities from the Manitoba border to Fort William and Port Arthur would be completed during the 1957 construction season, with the balance of the facilities from the lakehead to Kapuskasing to be constructed in the 1958 season. It is believed this suggested modification should be readily attainable.

Although not believed to be urgent at this time, the following additional matters should be acted upon by Trans-Canada in due course:

(1) Completion of negotiations for the relatively small volumes of gas proposed to be taken from the Kessler field in Alberta.

(2) Acquisition of such additional gas reserves as may be required adequately to support deliverability and long-term gas supply for the full later year requirements under Plan 1 or Plan 2, or earlier if the sale of gas for export at the international border near Emerson, Manitoba, becomes authorized.

(3) Modification of the Alberta export permit to provide for export from the Province of Alberta of the larger volumes of gas required in the later years under Plan 1 or Plan 2, or earlier if the Emerson sale becomes authorized.

(4) Obtaining confirmation by DeGolyer and MacNaughton that the gas reserves are adequate to support the proposed development for 20 years, as to both total volumes and deliverability.

III. DESCRIPTION OF PROJECT

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As shown in general on the map included as Exhibit 1 in the Appendix to this report, the proposed main line of Trans-Canada commences at a point in Alberta near the Alberta-Saskatchewan border near Burstall, Saskatchewan, and is to be constructed of 34" diameter pipe in an easterly direction for 586 miles generally following the routes of the Trans-Canada Highway and the Canadian Pacific Railway for the major portion of this distance to a point south of and approximately 12 miles east of Winnipeg, Manitoba.

From this point, the main line continues easterly and southeasterly, but is constructed of 30" diameter pipe, passing north of the main body of Lake-of-the-Woods at Kenora, Ontario, and generally following the routes of the Trans-Canada Highway and the Canadian Pacific Railway, to a point north of Port Arthur, Ontario. From this area the line runs generally northeasterly, paralleling the routes of the Trans-Canada Highway and the Canadian Pacific Railway to Nipigon, Ontario. From Nipigon, the line follows the route of the Trans-Canada Highway northward to Orient Bay and Beardmore, and then northeasterly, passing south of Geraldton, to Longlac, thence easterly to Hearst and then southeasterly to Kapuskasing, Cochrane and Iroquois Falls, Ontario. The route then continues, paralleling the Trans-Canada Highway and the Canadian National Railways, passing south of Kirkland Lake, to Cobalt, and southerly along the Trans-Canada Highway to the outskirts of North Bay, Ontario. From North Bay the line continues in a southerly direction, passing near Huntsville, Bracebridge, Orillia and Barrie, with

the 30" diameter section terminating at Toronto Junction just northeast of Woodbridge, Ontario. The entire 30" diameter section from near Winnipeg to Toronto Junction is 1,251 miles long.

From Toronto Junction a 24" section runs 25 miles southwesterly, passing near Pine Grove, Ontario, and connecting with the existing facilities of Niagara Gas Transmission Limited and the proposed facilities of Union Gas Company of Canada, Limited, near Sheridan, Ontario.

Also from Toronto Junction, the section of the main line extending to Montreal is constructed of 20" diameter pipe and runs northeasterly for 310 miles, in general paralleling the shoreline of Lake Ontario and the St. Lawrence River and terminating at a point near Ste. Anne de Bellevue on the Island of Montreal.

From a point on the 20" main line near Morrisburg, Ontario, a 40-mile lateral line, constructed of 12-3/4" diameter pipe, is proposed to run northwesterly parallel to and along a route just east of Highway 31 to a point near Ottawa, Ontario.

Although not included in the initial project as now proposed, upon receipt of proper authorizations from the Federal Power Commission, a 24" diameter lateral line, 48 miles in length, is proposed to run from the termination of the 34" section of main line near Winnipeg, Manitoba, in a southerly direction to a terminal point on the Canadian-United States border, near Emerson, Manitoba.

As will be noted from the map, Exhibit 1 in the Appendix to this report, locations are indicated for the ultimate construction of 19 compressor stations along the main line. Assuming that the sale of gas to customers across the international border near Emerson, Manitoba, is not approved during the period, 15 of these stations will have one or more compressor units installed therein by the end of the fifth year of full operation. Four of the nine compressor stations proposed for installation on the 34" diameter western section of the main line will contain centrifugal compressors, while the balance of the stations will have reciprocating type units installed.

From the Alberta-Saskatchewan border to a point somewhat east of Winnipeg, Manitoba, the main line traverses rolling prairie country which does not present any unusual pipeline construction problems. From eastern Manitoba, across northern Ontario to the area south of North Bay, Ontario, the line in general traverses the "Ontario Shield." It may be expected that in this section considerable rock will be encountered, along with muskeg, lakes, rivers and numerous other topographical features making construction difficult and expensive. Again in the eastern section, from Sheridan, Ontario, to Montreal, Quebec, and along the route of the lateral to Ottawa, Ontario, the line traverses relatively open farm country which should not present any unusual construction problems.

In general, the purpose of the project is to transport natural gas to eastern Canadian markets, some of which are now in existence and serving natural gas from other sources, others of which are now serving manufactured gas, and some of which are not yet developed for gas service of any type. In addition to these Canadian markets, the project as originally conceived proposed to sell substantial quantities of gas to Midwestern Gas Transmission Company at the international border near Emerson, Manitoba, and ultimately to sell gas to Tennessee Gas Transmission Company at the international border near Niagara Falls, New York.

In the present study, the markets being considered are those in existence or to be developed in Canada along the general route of the proposed line. Additional detail as to the markets proposed to be served is set forth in Section VII of this report and in Exhibits 7 and 8, Schedules 3, of the Appendix to this report.

IV. GAS PURCHASE CONTRACTS, AUTHORIZATIONS AND GAS RESERVES

IV. GAS PURCHASE CONTRACTS, AUTHORIZATIONS AND GAS RESERVES

A. GAS PURCHASE CONTRACTS

1. Description of Contracts

Two interim and 22 long-term contracts, as amended, covering quantities of gas to be purchased from 11 natural gas fields, in effect or pending execution between various gas producers in Alberta and Trans-Canada Pipe Lines Limited, are listed on Exhibit 3 in the Appendix to this report. A small additional quantity will be obtained from one other field, the Kessler field. The contract covering the Princess field includes the adjacent Patricia field.

In all of these contracts the buyer is Trans-Canada Pipe Lines Limited. They provide for delivery of the gas purchased to The Alberta Gas Trunk Line Company Limited at a point or points in the field, or at the tail gate of a gas treatment plant to be constructed by the seller, and for transmission of the gas by Trunk Line for delivery to Trans-Canada at a point in Alberta near the Saskatchewan border referred to as the "Saskatchewan Gate."

All of the long-term contracts continue in effect by their terms for 25 years beginning the first day of the calendar month following the month in which the first delivery of gas is made or until expiration of Trans-Canada's permit to remove gas from Alberta, whichever first occurs. It is noted, however, that contracts relating to three of the fields, Gilbey, Homeglen-Rimbey, and Nevis, provide that after 20 years the contract quantities shall be re-examined on the basis of reserves then available. Also certain other contracts, those relating to the Provost field, are limited by delivery of a stated total quantity of gas.

The interim contracts, which Trans-Canada is about to execute, provide for a small amount of gas during the starting period in which Trans-Canada will have constructed only a part of its line. These interim contracts each provide for a term of 18 months next following the first delivery of gas thereunder, or until commencement of delivery of gas under the long-term contract with the same producer covering the same field, or until expiration of Trans-Canada's permit to remove gas from Alberta, whichever first occurs. They relate to the Bindloss field which is comparatively near the Saskatchewan Gate and thus requires a minimum amount of construction by Trunk Line for gathering.

The interim contracts also provide for gas required for packing, pigging, purging and testing the pipeline separate and apart from the daily contract quantities and maximums and minimums. The interim contracts will presumably be superseded by the long-term contracts with the same sellers covering the same field by November 1, 1957. These contracts together appear to provide sufficient gas for packing, pigging, purging and testing the entire Trans-Canada system although additional long-term contracts will have to be activated to supply markets during the interim period before the system is completed and in full operation.

Attached to each long-term contract is a letter, marked Exhibit "B", which outlines the Trans-Canada project as contemplated when such letters were written. Each of these letters has subsequently been amended by the same letters of extension which extended the delivery dates and dates for commencement of price escalation. However, these letters as so amended

do not outline the project as it is now scheduled. They indicate that during 1957 the originally projected pipeline system will be completed east to Winnipeg, Manitoba, and from Winnipeg to Emerson, Manitoba. Neither Plan 1 nor Plan 2 includes the Emerson lateral. Also these letters indicate that the lines from Toronto Junction to Sheridan, Ontario, and from Toronto Junction to Montreal, Quebec, will be completed during 1957. This is contemplated under Plan 2 but under Plan 1 these lines would not be constructed until 1958. The entire system is stated to be planned for completion in 1958. To the extent that any of the program as described in the letters is not to be carried out, clarifying amendments to the long-term gas purchase contracts are indicated. Otherwise the discrepancies would apparently furnish ground for cancellation of the contracts.

2. Volumes and Deliveries

The quantities of gas covered by the contracts are listed on Exhibit 3 in the Appendix to this report. The interim contracts cover a daily contract quantity of 21,500 Mcf per day. In these the parties agree to do all things necessary to start deliveries of gas on or before the later of November 1, 1956, or 30 days after notice, to be given not later than October 1, 1956, by Trans-Canada that it is ready to accept deliveries. If Trans-Canada is unable to take regular deliveries of gas under the interim contracts by July 1, 1957, each seller has the right to terminate on August 31, 1957, by giving notice on or before August 15, 1957. General provisions of these contracts are much the same as those of the long-term contracts.

The daily contract quantities of gas covered by the long-term contracts total as follows: For the first year, 230,200 Mcf per day, for the second year, 452,977 Mcf per day, and for the third year and thereafter, 591,977 Mcf per day.

All of the contracts fix daily maximum quantities which can be taken and daily annual average minimum quantities which must be taken or paid for. These maximum and minimum amounts are also listed on Exhibit 3 and are discussed in the subsequent pages of this section. The daily maximum quantities of the long-term contracts total as follows: For the first year, 264,729 Mcf per day, for the second year 531,426 Mcf per day, and for the third year and thereafter, 657,326 Mcf per day. The daily annual average minimum quantities of these contracts total as follows: For the first year, 149,630 Mcf per day, for the second year, 349,735 Mcf per day, for the third year, 460,985 Mcf per day, for the fourth year, 478,632 Mcf per day, and for the fifth year and thereafter, 482,082 Mcf per day.

In each case the actual year will begin the first day of the month following the first delivery of gas under the respective contract. Therefore the calendar date for the beginning of the respective years may in practice differ as among the contracts. Each contract further provides that Trans-Canada undertakes to do all things necessary to complete its pipeline system so gas may be delivered into it before a stated date, which is the date used for the purposes of Exhibit 3. This date is November 1 in each contract but the years differ. In some contracts it is 1957,

in others 1958, and still others 1959. Also each contract provides a date on or before which Trans-Canada must be able to take gas. This date is the December 15 following the November 1 fixed in the particular contract. Upon failure of Trans-Canada to do so the seller has option to terminate the contract.

None of the long-term contracts is by its terms tied in with any other. The taking of gas is a separate and independent matter under each contract and taking or not taking of gas under one does not affect the taking or not taking of gas under any other.

The pattern that results from this documentation thus is that prior to November 1, 1957, Trans-Canada may take gas from the Bindloss field under one or both of the interim contracts, and thereafter under the Bindloss long-term contracts, and deliver such gas to markets along the line from the Alberta border to Port Arthur and Fort Williams, Ontario. As additional quantities of gas are required for service to these and other markets other contracts relating to other fields can be activated. All contracts must be activated, however, within their respective time requirements, as discussed above, or be subject to cancellation and consequent loss of reserves.

3. Relation of Gas Supply to Capacity of Line

In the following table are set forth the annual capacity of the proposed line in comparison with the total annual minimum take-or-pay quantities, the annual total of daily contract quantities, and the annual total of daily maximum quantities, covered by the long-term contracts (assuming unitization in certain cases) as detailed on Exhibit 3 in the Appendix to this report. The figures shown are in millions of Mcf.

Year Beginning	Annual Capacity (At 90% Annual Capacity Factor)	Annual Minimum Take-or-Pay Quantities	Annual Total of Daily Contract Quantities	Annual Total of Daily Maximum Quantities
November 1, 1957	15 *	54.6	84.0	96.6
November 1, 1958	98.9	127.6	165.3	193.9
November 1, 1959	125.5	168.2	216.0	239.9
November 1, 1960	150.8	174.7	216.0	239.9
November 1, 1961	169.8	175.9	216.0	239.9
November 1, 1962	187.9	175.9	216.0	239.9

* Market; capacity exceeds this figure.

From this table it is seen that the capacity of the line (or the market in the case of the year beginning November 1, 1957) is insufficient, until the year beginning November 1, 1962, to utilize the total quantity of gas required to be taken by Trans-Canada under the minimum take-or-pay provisions of the gas supply contracts. In the year beginning November 1, 1957, the excess of gas supply is 39.6 Bcf; beginning November 1, 1958, it is 28.7 Bcf; beginning November 1, 1959, it is 42.7 Bcf; beginning November 1, 1960, it is 23.9 Bcf; and beginning November 1, 1961, it is 6.1 Bcf. In the year beginning November 1, 1962, the capacity of the line

exceeds the minimum take-or-pay quantity by 12.0 Bcf. It may be that this excess of take-or-pay quantities during the earlier years could be adjusted downward by downward revision of contract quantities in the early years. Also the take-or-pay quantities would be reduced by 24,000 Mcf if the Homeglen-Rimbey field is not unitized, but at a loss of long-term reserves.

From this table it is also seen that the annual total of the daily contract quantities exceeds the annual capacity of the line in all of the years.

4. Price Provisions

Price of gas taken under the interim contracts is fixed at 10¢ per Mcf on a 14.4 psia pressure base and is not subject to redetermination.

Provisions covering the basic unit purchase prices of gas under the long-term contracts, as amended, are the same in all contracts but the actual price is subject to periodic redetermination and also to other causes for change from the prices as scheduled in the contracts.

The actual price of gas to be paid by Trans-Canada to the supplier is increased in each case by a charge, as hereinafter noted, payable to Trunk Line for gathering in the field and transportation to the Saskatchewan Gate for delivery to Trans-Canada at that point.

All payments are to be made in Canadian funds.

The scheduled basic unit purchase prices per Mcf are based on a pressure base of 14.4 psia at 60° F. temperature. If gas is resold on a

14.73 psia pressure base the amount of gas would be about 2.3% greater than the amount at a pressure base of 14.4 psia. A price of 10¢ per Mcf at 14.4 psia equates to about 10.23¢ per Mcf at 14.73 psia.

The basic unit purchase prices as listed in the contracts are as follows:

Period	Price
From the date of initial delivery through Dec. 31, 1959	10¢ per Mcf
From Jan. 1, 1960 through Dec. 31, 1960	10.25¢ per Mcf
From Jan. 1, 1961 through Dec. 31, 1961	10.50¢ per Mcf
From Jan. 1, 1962 through Dec. 31, 1962	10.75¢ per Mcf
From Jan. 1, 1963 through Dec. 31, 1963	11¢ per Mcf
From Jan. 1, 1964 through Dec. 31, 1964	11.25¢ per Mcf
From Jan. 1, 1965 through Dec. 31, 1965	11.50¢ per Mcf
From Jan. 1, 1966 through Dec. 31, 1966	11.75¢ per Mcf
From Jan. 1, 1967 through Dec. 31, 1967	12¢ per Mcf
From Jan. 1, 1968 through Dec. 31, 1968	12.25¢ per Mcf
From Jan. 1, 1969 through Dec. 31, 1969	12.50¢ per Mcf
From Jan. 1, 1970 through Dec. 31, 1970	12.75¢ per Mcf
From Jan. 1, 1971 through Dec. 31, 1971	13¢ per Mcf
From Jan. 1, 1972 through Dec. 31, 1972	13.25¢ per Mcf
From Jan. 1, 1973 through Dec. 31, 1973	13.50¢ per Mcf
From Jan. 1, 1974 through Dec. 31, 1974	13.75¢ per Mcf
From Jan. 1, 1975 through Dec. 31, 1975	14¢ per Mcf
From Jan. 1, 1976 through Dec. 31, 1976	14.25¢ per Mcf
From Jan. 1, 1977 through Dec. 31, 1977	14.50¢ per Mcf
From Jan. 1, 1978 through Dec. 31, 1978	14.75¢ per Mcf
From Jan. 1, 1979 through Dec. 31, 1979	15¢ per Mcf
From Jan. 1, 1980 through Dec. 31, 1980	15.25¢ per Mcf
From Jan. 1, 1981 through Dec. 31, 1981	15.50¢ per Mcf
From Jan. 1, 1982 and thereafter during the term hereof	15.75¢ per Mcf

These basic unit prices are subject to redetermination under a variety of circumstances as hereinafter set forth. However, in no case shall any redetermination of price result in reduction below the basic price or any previously redetermined price.

Provisions for redetermination of price require redetermination prior to January 1, 1963, in one case only, namely, that Trans-Canada's "earnings rate of return" shall be in excess of either 7% or such other earnings rate, if any, as may be fixed by regulation or legislation, whichever is lower. Means for determining amount of earnings rate of return are set forth.

Commencing January 1, 1963, redetermination of price shall be undertaken (a) within 60 days from January 1, 1963, and each fifth January 1 thereafter, (b) within 60 days from the date Trans-Canada may commence to transport volumes of gas in quantities amounting to 183,000,000 Mcf per year, (c) within three months after over-all quantities of gas transported by Trans-Canada for its own account from western Canada through its system in Canada are increased above 183,000,000 Mcf per year, and (d) within 30 days after Trans-Canada's earnings rate of return shall be in excess of either 7% or such other earnings rate, if any, as may be fixed by regulation or legislation, whichever is lower. Furthermore, in the event Trans-Canada, by reason of increased prices or costs, applies to a regulatory or governmental body, it is required by the contract to present as part of its case such inflationary trends together with the effect of such trends on the price of gas with a view to increasing prices to seller.

Redetermination of price in any of the foregoing cases shall be arrived at by mutual agreement but if mutual agreement cannot be reached the redetermination shall be referred to arbitration.

It is noted that these provisions for redetermination and price adjustments in effect place a ceiling on rate of return of Trans-Canada at close to 7% and sharply restrict negotiations with customers who might be induced to take larger volumes at lower prices. Further it is noted that the repeated redetermination affecting the entire price structure are without standards as to how the redetermined prices are to be fixed. Unless redetermination can be accomplished by mutual agreement the redetermination goes to arbitrators whose decisions are likewise uncontrolled by any standards.

In addition to provisions for redetermination, the contracts provide that if Trans-Canada voluntarily reduces prices to any of its customers taking not less than 15,000,000 Mcf of gas per year, Trans-Canada shall increase the price of gas payable to seller, for the period such reduction is in effect, by 50% of the total average reduction per Mcf to such customers and, further, that if Trans-Canada in any year earns an excessive rate of return as above determined and by reason thereof its prices to its customers are reduced by regulatory or legislative action, Trans-Canada shall automatically increase its price of gas payable to seller by 50% of the total average reduction so ordered unless the order of the regulatory body either allows an increase based on this principle or specifically denies an increase based on the principle.

5. <u>Minimum Take-or-Pay Provisions</u>

All of the gas purchase contracts contain minimum take-or-pay provisions.

In the interim contracts these provisions require payment for 65% of aggregate daily contract quantities during the life of the contract after first taking of gas. The percentage and quantities are set forth in detail by contracts in Exhibit 3 in the Appendix to this report. This take-or-pay minimum provision is not activated so long as gas is taken only for packing, pigging, purging and testing.

In the long-term contracts these take-or-pay minimum provisions are based on annual amounts, or annual daily averages. The percentages in the first year are all 65% but thereafter vary somewhat until in the fifth year and thereafter they are all 80% except one which is 85%. The percentages and quantities are set forth in detail by contracts in Exhibit 3 in the Appendix to this report.

Gas paid for but not taken in any year may be taken in the next succeeding year but does not also count as part of the annual volume for that year. This applies to the interim as well as the long-term contracts.

6. Maximum Daily Quantities

All of the contracts also contain provisions which permit the taking of gas, on a daily basis, in certain percentage quantities above the daily contract quantities. In the interim contracts this percentage is 115%. In the long-term contracts the percentages range from 105.88% to 130%. The percentages and quantities are set forth in detail by contracts in Exhibit 3 in the Appendix to this report, the total quantities aggregating 657,326 Mcf per day in the year beginning November 1, 1959, and thereafter.

It is noted that these maximum quantities are on a daily basis whereas the take-or-pay minimums are on an annual basis.

7. Btu Adjustment

If the weighted average Btu content of gas delivered in any month is less or more than 1,000 per cubic foot, the price is decreased or increased in proportion to such Btu variation.

8. Heating Value and Delivery Pressure

Gas shall have a heating value no less than 950 Btu per cubic foot and shall be delivered at pressures which vary between the contracts from 725 psia to 900 psia at a temperature not greater than 120° F. Provisions are made for variations from these requirements. The interim contracts provide for 725 psia pressure.

9. Taxes

New or increased occupation, production, severance or sales taxes or equivalent imposed upon seller in excess of rates prevailing at the date of the purchase contract shall be borne one-half by Trans-Canada and one-half by seller. This provision does not apply to income, capital stock, franchise, general property or other taxes of like nature.

10. Pooling Provisions

Pooling or unitizing the leases covered by the respective contracts is recognized and permitted. In case of pooling or unitizing the lease covers the sellers' interest in the gas produced from the unit.

11. Conditions Precedent

Effectiveness of the contracts is dependent upon certain conditions:

(a) That Trans-Canada shall have obtained on or before October 31, 1956, (August 1, 1956, in the interim contracts), all necessary permits from Alberta.

(b) That Trans-Canada shall have obtained on or before October 31, 1956, (August 1, 1956, in the interim contracts), all other necessary certificates and permits.

(c) That Trans-Canada shall have entered on or before November 30, 1956, (August 1, 1956, in the interim contracts), into a contract with Trunk Line for transportation of gas to the Saskatchewan Gate.

(d) That Trans-Canada shall have obtained on or before November 30, 1956, (not contained in the interim contracts), a certificate from underwriters as to adequate financing.

Unless these conditions are met the respective contracts terminate automatically on March 1, 1957, (September 1, 1956, in the interim contracts), except that the respective sellers have the right to extend said dates,October

31, 1956, and November 30, 1956, in the long-term contracts at any time between said dates and March 1, 1957, or to terminate the contracts before March 1, 1957.

12. Regulatory Authorization

Deliveries of gas are subject to required licenses, permits, certificates and other authorizations and to sufficient completion of the Alberta Trunk Line pipeline to effect the deliveries. Also the contracts are expressly made subject to all laws, rules, regulations and orders of duly constituted authority.

B. ALBERTA EXPORT PERMIT

The Province of Alberta acting through The Petroleum and Natural Gas Conservation Board under the authority of The Gas Resources Preservation Act, Chapter 2 of the Statutes of Alberta, 1949, Second Session, has issued a permit for the export of gas from Alberta through facilities of The Alberta Gas Trunk Line Company Limited to supply the Trans-Canada pipeline. This permit in its original form is dated May 14, 1954, and extends for 27 years from that date.

Through successive amendments dated December 8, 1954, February 10, 1955, April 22, 1955, October 31, 1955, February 23, 1956, and June 5, 1956, the original permit was changed so that it is now effective as follows:

> The daily maximum quantity is 620,000 Mcf. The 12 months' maximum is 183,000,000 Mcf and the total aggregate is 4,350,000,000 Mcf, all on a pressure base of 14.4 psia and temperature of 60° F. On a pressure base of 14.73 psia 183,000,000 Mcf equates to 178,900,000 Mcf and 4,350,000,000 Mcf equates to 4,252,545,000 Mcf. The time limit for completion of financing of construction is April 2, 1957. The deadline for commencement of construction is June 30, 1957, and for commencement of removal of gas from Alberta is December 31, 1957.

The fields to which the permit applies, as amended to date, are as follows:

Attlee-Buffalo
Bindloss
Cessford
Countess
Duchess
Gilby
Hamilton Lake
Kessler
Oyen
Pincher Creek
Princess
Provost
Sibbald
Sylvan Lake

With respect to a total amount not to exceed 900,000,000 Mcf, included in the over-all limit of 4,350,000,000 Mcf, the permit also applies to the following fields:

Erskine
Fenn-Big Valley
Homeglen-Rimbey
Nevis
Stettler

subject to Board approval as to the daily amounts to be taken from each field.

A second proviso, relating to both of the above-listed groups of fields, states that if on April 30, 1956, Trans-Canada has not satisfied the Board that it owns or has contracted for significant quantities of gas from any of said fields, the Board may without notice delete such field from the permit.

With respect to the Nevis field, by letter dated April 2, 1956, the Board approved a Trans-Canada contract for withdrawal of gas at a daily

rate not to exceed 100,000 Mcf. This letter also approves withdrawal from the Homeglen-Rimbey field of a total of 390,000,000 Mcf at a daily rate not to exceed 72,000 Mcf.

It is noted particularly that this export permit applies only to gas exported through the facilities of The Alberta Gas Trunk Line Company Limited. Therefore Trans-Canada cannot take gas out of Alberta under this permit except through Trunk Line's pipeline.

Supplementing this export permit and in view of the possibility that Trans-Canada may have need for greater quantities of gas then presently under contract and presently covered by the export permit, Premier Manning of Alberta has stated in a letter dated September 9, 1955, to Trans-Canada that additional reserves of gas over and above those covered by the present permit would be made available as they become surplus to the requirements of the Province provided reserves covered by the present permit and any additional reserves are covered by contract. A copy of this letter is attached as Exhibit 4 in the Appendix to this report.

C. GAS RESERVES

As stated in the DeGolyer and MacNaughton report dated July 1, 1955, total estimated recoverable natural gas reserves in the 19 gas supply fields in Alberta assigned to Trans-Canada under its Permit from The Petroleum and Natural Gas Conservation Board of Alberta, dated May 14, 1954, as amended, as of the date of the report, were as follows:

	ESTIMATED RESERVES	
	At 14.4 Psia (MMcf)	At 14.73 Psia (MMcf)
Recoverable Reserves		
Proved	5,573,418	5,448,556
Probable	1,262,659	1,234,372
Total Proved and Probable	6,836,077	6,682,928
Possible	1,913,095	1,870,236
Total	8,749,172	8,553,164

As stated in the Supplement to the DeGolyer and MacNaughton report, also dated July 1, 1955 (Table I), total estimated salable natural gas reserves available to Trans-Canada in the 19 assigned gas supply fields were as follows:

	MMCF @ 14.73 PSIA		
Salable Reserves	Proved	Probable	Total
Available under gas purchase contracts	3,634,967	794,834	4,429,801
Available in 13 fields from which Trans-Canada has contracted to purchase gas	4,362,770	954,645	5,317,415
Available in 19 assigned fields	4,537,471	1,041,237	5,578,708

Deliverability schedules of <u>proved</u> salable reserves in Alberta under contract to Trans-Canada, as summarized in said Supplemental Report, are as follows in MMcf:

	Estimated Trans-Canada Requirements		Estimated Total Deliveries to Trans-Canada		Estimated Trans-Canada Deficiencies	
Year	Annual	Daily Average	Annual	Daily Average	Annual	Daily Average
1956-1957	65,783	180.200	65,783	180.200		
1957-1958	139,932	383.400	139,932	383.400		
1958-1959	162,544	445.300	162,544	445.300		
1959-1960	182,112	498.900	182,112	498.900		
1960-1961	182,112	498.900	182,112	498.900		
1961-1962	182,112	498.900	182,112	498.900		
1962-1963	182,112	498.900	182,112	498.900		
1963-1964	182,112	498.900	182,112	498.900		
1964-1965	182,112	498.900	182,112	498.900		
1965-1966	182,112	498.900	182,112	498.900		
1966-1967	182,112	498.900	182,112	498.900		
1967-1968	182,112	498.900	182,112	498.900		
1968-1969	182,112	498.900	182,112	498.900		
1969-1970	182,112	498.900	182,112	498.900		
1970-1971	182,112	498.900	170,223	466.346	11,889	32.554
1971-1972	182,112	498.900	147,516	404.150	34,596	94.750
1972-1973	182,112	498.900	126,510	346.600	55,602	152.300
1973-1974	182,112	498.900	109,446	299.850	72,666	199.050
1974-1975	182,112	498.900	95,157	260.700	86,955	238.200
1975-1976	182,112	498.900	83,440	228.600	98,672	270.300
1976-1977	182,112	498.900	74,005	202.750	108,107	296.150
1977-1978	182,112	498.900	66,314	181.720	115,798	317.180
1978-1979	182,112	498.900	50,954	139.640	131,158	359.260
1979-1980	182,112	498.900	43,089	118.050	139,023	380.850
1980-1981	182,112	498.900	29,018	79.500	153,094	419.400
Total						
at 14.4 Psia	4,374,723		3,367,163		1,007,560	
at 14.73 Psia	4,276,714		3,291,727		984,987	
Estimated Proved Reserves						
at 14.4 Psia			3,718,261			
at 14.73 Psia			3,634,967			
Percentage Withdrawn			90.6			

Similar deliverability schedules of <u>proved and probable</u> salable reserves in Alberta under contract to Trans-Canada, likewise as summarized in said Supplemental Report, are as follows in MMcf:

	Estimated Trans-Canada Requirements		Estimated Total Deliveries to Trans-Canada		Estimated Trans-Canada Deficiencies	
Year	Annual	Daily Average	Annual	Daily Average	Annual	Daily Average
1956-1957	65,783	180.200	65,783	180.200		
1957-1958	139,932	383.400	139,932	383.400		
1958-1959	162,544	445.300	162,544	445.300		
1959-1960	182,112	498.900	182,112	498.900		
1960-1961	182,112	498.900	182,112	498.900		
1961-1962	182,112	498.900	182,112	498.900		
1962-1963	182,112	498.900	182,112	498.900		
1963-1964	182,112	498.900	182,112	498.900		
1964-1965	182,112	498.900	182,112	498.900		
1965-1966	182,112	498.900	182,112	498.900		
1966-1967	182,112	498.900	182,112	498.900		
1967-1968	182,112	498.900	182,112	498.900		
1968-1969	182,112	498.900	182,112	498.900		
1969-1970	182,112	498.900	182,112	498.900		
1970-1971	182,112	498.900	182,112	498.900		
1971-1972	182,112	498.900	182,112	498.900		
1972-1973	182,112	498.900	182,112	498.900		
1973-1974	182,112	498.900	182,112	498.900		
1974-1975	182,112	498.900	179,650	492.154	2,462	6.746
1975-1976	182,112	498.900	153,410	420.300	28,702	78.600
1976-1977	182,112	498.900	132,953	364.250	49,159	134.650
1977-1978	182,112	498.900	115,925	317.600	66,187	181.300
1978-1979	182,112	498.900	102,238	280.100	79,874	218.800
1979-1980	182,112	498.900	88,547	242.050	93,565	256.850
1980-1981	182,112	498.900	72,636	199.000	109,476	299.900
Total						
at 14.4 Psia	4,374,723		3,945,298		429,425	
at 14.73 Psia	4,276,714		3,856,910		419,804	
Estimated Proved Reserves						
at 14.4 Psia			4,531,312			
at 14.73 Psia			4,429,801			
Percentage Withdrawn			87.1			

V. TRANSPORTATION SERVICE FROM THE ALBERTA GAS TRUNK LINE COMPANY LIMITED

V. TRANSPORTATION SERVICE FROM THE ALBERTA GAS TRUNK LINE COMPANY LIMITED

Under date of March 26, 1956, Trans-Canada entered into a letter agreement with The Alberta Gas Trunk Line Company Limited, superseding and canceling an earlier letter agreement dated February 2, 1956, which provides that Trunk Line will construct facilities in Alberta in accordance with Permit No. 1, dated December 29, 1955, granted to Trunk Line by the Minister of Highways of the Province of Alberta, as such permit is amended by Amendment to Permit No. 1, dated March 23, 1956,for the purpose of transporting gas which will be purchased by Trans-Canada from various producers in the gas fields in Alberta where reserves are dedicated to Trans-Canada and will deliver such gas to Trans-Canada at a point inside the Province of Alberta near the Alberta-Saskatchewan border and in the general vicinity of Burstall, Saskatchewan called the "Saskatchewan Gate". A copy of said letter agreement is attached as Exhibit 6 in the Appendix to this report.

As is indicated on the map on page 5 of said Exhibit 6, the proposed Trunk Line system consists of an east-west section of 34" diameter main line (approximately 64 miles), extending west from the point of connection with Trans-Canada. From a point on this main line, approximately 18 miles west of the Saskatchewan border, an 18" lateral line will extend in a northerly direction to the Provost area with connections along the route at the Oyen, Sibbald and Bindloss fields. From the western extremity of the 34" section, Trunk Lines' facilities will extend in three directions:

1. Southwest 149 miles of 24" line to the Pincher Creek area.

2. Westward with a 7-mile section of 10-3/4" line to the Princess area, followed by a 20-mile section of 8-5/8" line to the Duchess area, and an 8-mile section of 6-5/8" line to the Countess area.

3. In a northwesterly direction, commencing with 13.9 miles of 26" line to the Steveville area, and thence 11.2 miles of 26" diameter line to the Cessford area, continuing at 24" diameter for 111.4 miles to the Nevis area with a connection enroute to the Sunnynook area, and continuing from the Nevis area with an 18" diameter line 52 miles to the Homeglen-Rimbey area.

As proposed, the Trunk Line system will operate on the pressure of the gas received from the gas wells with no compressor stations planned during the initial years of operation.

The letter agreement of March 26, 1956 states that "subject to each party making satisfactory financial arrangements not later than October 31, 1956 to enable the construction of its respective project", the parties will prepare and execute prior to commencement of construction of their respective pipeline systems, a definitive contract which will include the various provisions of the letter agreement. The transportation agreement is to have a term of 25 years, commencing with the date of initial delivery by Trunk Line to Trans-Canada, which is assumed to take place at November 1, 1957. The volumes which Trunk Line agrees to transport are limited to a maximum daily

quantity of 620,000 Mcf and a maximum annual quantity of 183,000,000 Mcf, both volumes at a pressure base of 14.4 psia and a temperature base of 60°F. These volumes are identical to those presently authorized in the permit granted to Trans-Canada by the Province of Alberta for export of gas from the Province.

The letter agreement provides that Trans-Canada will pay Trunk Line for the transportation service contemplated by the agreement on a "cost-of-service" formula, covering operating expenses, depreciation (with a 4-1/2% rate for the pipeline facilities), taxes, return at an annual rate of 7-1/2% on a specified rate base (stated to be original investment less accrued depreciation, plus an allowance for working capital). During the development period, to extend for approximately three years from the commencement of service, and in any event ending on October 31, 1960, on the basis of Trans-Canada's present construction plans, Trunk Line agrees that the formula shall recognize reduced rates of depreciation and rates of return. Assuming deliveries under the contract commence to Trans-Canada on November 1, 1957 and that the development period would then extend to October 31, 1960, the following are the reduced depreciation and rate of return percentages which would be applied to each year of the development period:

Year	Depreciation Rate	Rate of Return
1957-58	3-1/2%	5-1/4%
1958-59	3-3/4%	6-1/2%
1959-60	4%	6-3/4%

These reductions in depreciation and return are intended to insure that the

transportation charge to Trans-Canada during the first three years of transportation service will not exceed 4¢ per Mcf. It is stated that, on the basis of estimated costs, the contemplated volumes at the time the letter agreement was executed, when applied to the cost-of-service formula, would accomplish this result. However, Trunk Line further agrees that the over-all charges for transportation service to Trans-Canada will not exceed 4¢ per Mcf, provided Trans-Canada (again assuming service under the contract commences November 1, 1957) requires the transportation of at least the following quantities of gas through the Trunk Line system during the following years:

Year	Minimum Annual Volume
1957-58	63,815,000 Mcf
1958-59	140,362,000 Mcf
1959-60	163,486,000 Mcf

These volumes are substantially in excess of the capacity of the Trans-Canada project, at an assumed annual capacity factor of 90% of the system's peak capacity for the years in question. For the year 1957-58 the volumes which Trans-Canada can take from Trunk Line, based on limitations as to markets on the western section of the line, are estimated to be about 15,000,000 Mcf. With the completion of the 1958 construction program, and with the entire Trans-Canada line in service, the annual capacity of the system will be approximately 99,000,000 Mcf, whereas, after the installation of additional compressor stations in the 1959 construction season, the annual capacity of the system for the year 1959-60 will be approximately 126,000,000 Mcf. It

will therefore be necessary for Trans-Canada to secure modifications of its agreement with The Alberta Gas Trunk Line Company Limited, if it is to be assured of a 4¢-per-Mcf maximum transportation charge from Trunk Line. Without such assurance and with the reduced volumes now contemplated to be taken from Trunk Line, the cost-of-service fromula would result in a materially higher cost of transportation to Trans-Canada.

In addition to the cost of transportation payable by Trans-Canada to Trunk-Line, if such cost of transportation is found to average less than 4¢ per Mcf after an annual review, Trans-Canada must in that case, by the terms of the gas supply contracts discussed in Section IV of this report, pay the respective sellers the difference between the actual annual average cost and 4¢ multiplied by the total number of Mcf of gas purchased from each respective seller. This provision has the effect of creating a "floor" of 4¢ per Mcf (4.09¢ per Mcf equivalent at Trans-Canada's 14.73 psia sales pressure base) throughout the life of the agreement, but with the exception of the 4¢-per-Mcf limit discussed above during the developmental period, the contract contains no "ceiling" of any kind on the cost of transportation which must be paid to Trunk Line by Trans-Canada.

Also, in its present form, the letter agreement provides no ceiling to cover the cost of transportation of any small amounts of gas which might be taken by Trans-Canada for cleaning, purging, filling or commencement of sales to market prior to the taking of gas for market under the long-term contracts, which is assumed to commence November 1, 1957. It is understood, however, that Trans-Canada contemplates negotiation of an interim

transportation contract to cover the incidental volumes of gas to be transported for it during the period prior to November 1, 1957.

The engineering report of Dutton-Williams-Mannix on the proposed gas pipeline system for Trunk Line, dated November 5, 1955, has been reviewed briefly as to estimated costs of construction shown. Based on such brief review, and a comparison of those costs with our revised estimated costs of construction for Trans-Canada's Western Section through comparable terrain, it is believed that the estimated costs of construction for the proposed pipeline system of Trunk Line set forth in the Dutton-Williams-Mannix report are sufficiently adequate to cover all costs, including the August, 1956 increases in pipe costs. Direct pipeline operating and maintenance expense estimated for Trunk Line in the November 5, 1955, report is on the basis of approximately $1,000 per mile of line in comparison with a maximum figure of $700 per mile of line estimated by Trans-Canada for its own operations. It is believed that such estimate of direct pipeline operating and maintenance expense of the Trunk Line system is a "full" figure which may be bettered in actual practice. Administrative and general expenses are estimated at 30% of direct operating and maintenance expense, and, for the type of operation of the Trunk Line project, the resulting dollar figures for administration and general expense are believed to be adequate.

The governmental authorizations from the Alberta government to The Alberta Gas Trunk Line Company Limited appear adequate and sufficient for the service proposed to be rendered. In testimony presented by Trunk Line before the Federal Power Commission in Docket G-9448 et al., Trunk Line stated that

it has a letter of intent dated September 26, 1955 from Tanner & Co. Limited and Nesbitt, Thomson and Company, Limited, acting as Joint Syndicate Managers on behalf of a group of Canadian investment banking houses, indicating their intention of financing Trunk Line's proposed gas gathering system.

VI. TRANS-CANADA'S ESTIMATES OF COSTS OF CONSTRUCTION AND OPERATION

VI. TRANS-CANADA'S ESTIMATES OF COSTS OF CONSTRUCTION AND OPERATION

A. COSTS OF CONSTRUCTION

In analyzing the cost estimates of Trans-Canada for construction of the proposed pipeline and compressor station facilities, a check was first made of the pipeline flow calculations used by Trans-Canada in sizing the facilities. It was determined that the line sizes and compressor station installations proposed were adequate to handle the through-put volumes contemplated.

The amount included in the estimates for line pipe delivered to various distribution points selected along the right-of-way were checked in some detail. This check covered pipe price, duty, sales tax and freight. As to 38,900 tons of 34" pipe now on location, all items of cost of such pipe delivered to distribution points were verified from actual company records. The remaining 167,911 tons of 34" pipe from United States sources is expected to be delivered prior to July, 1957. Mill prices for this pipe, reflecting recent increases resulting from the 1956 summer steel strike were checked, requiring some upward adjustment from the original Trans-Canada figures. Also, freight was adjusted to reflect an increase of 7% which went into effect on the Canadian railroads in March, 1956. This freight rate increase is a temporary one being collected under bond, but it is presumed that the Canadian railroads will receive this full increase upon determination of a final rate. The import duty has been computed at 40% of the full rate in expectation of a probable 60% rebate which it is expected will be negotiated on such items as line pipe.

Of the 30" pipe, 200,000 net tons is on order from South Durham Steel & Iron Company, Limited, Stockton-on-Tees, England, and is scheduled for delivery f.o.b. Montreal, commencing March 1, 1957, with final deliveries to be completed in July, 1959. It is expected by Trans-Canada that some of the 75,000 tons of this order scheduled for 1959 delivery may be advanced to 1958. In addition to the pipe from England, a request has been made of Welland Tubes, Ltd., a new large-diameter line pipe manufacturer owned jointly by Page Hersey Tubes, Ltd. and the Steel Company of Canada and expected to be in operation in early 1957, for 253,425 tons of 30" diameter pipe for 1957 and 1958 delivery. To date, orders for 21,818 tons for delivery in 1957 and 83,000 tons in 1958 have been accepted by Welland and negotiations are going forward which it is expected by Trans-Canada will lead to acceptance by Welland of orders for additional tonnage. Also, 21,575 tons of 20" previously on order from a United States supplier has been switched to 30". Should the entire 453,425 tons of 30" pipe, for which orders have been placed with South Durham and inquiries placed with Welland, together with the 21,575 tons from the United States in fact be delivered, Trans-Canada would have some 83,000 tons of 30" pipe in excess of its presently estimated requirements. However, present firm schedules are 140,807 tons of 30" short of Trans-Canada's requirements for its 1957 and 1958 construction schedules. Negotiations are presently in progress between Trans-Canada and other potential suppliers of 30" pipe to assure timely delivery of the required tonnages.

The price for pipe from South Durham is firm as regards any increase in cost of labor, transportation or other costs, with the exception

of a variation in the price of steel plate. It is understood that no increase in the price of steel plate is at present contemplated by the English steel fabricators. The price on pipe from Welland Tubes, Ltd., is understood to be governed by the price on pipe from England, f.o.b. Montreal. It is assumed that there will be no change in this price over the period of delivery.

The relatively small amount of 24" pipe required for construction of the Sheridan lateral, approximately 4,500 tons, will be purchased in the United States. This pipe has been priced out at August, 1956, U. S. prices, and it is assumed that the order will be delivered prior to any further price increase.

The 20" pipe requirements of Trans-Canada, totaling 43,150 tons, are on order with United States mills and delivery is now scheduled to commence in December, 1956. This pipe has been priced out at August, 1956 prices.

The 12" pipe requirements, 3,533 tons, may be purchased in either the United States or Canada, but have been priced out at August, 1956 prices.

Although the full duty on English pipe in Canada is 10%, while the duty on pipe from the United States is 15%, it has been assumed that the 60% rebate of duty expected to be negotiated with the Dominion government will apply to pipe received from either country. Page Hersey Tubes, Ltd. has recently filed a petition with the Dominion Tariff Board seeking (a) an increase in the import duty and (b) elimination of any rebates on

import duty, with regard to any materials imported into Canada which are manufactured in Canada, including large diameter line pipe. Petitions in opposition to this request have been filed by Trans-Canada, the Canadian Petroleum Association, the Canadian Gas Association and several gas distribution companies. According to information obtained from counsel for Trans-Canada, favorable action on Page Hersey's petition is believed unlikely, and even if successful could not become operative for perhaps three years.

With regard to total estimated cost of pipe for the project, it is concluded that the Trans-Canada estimates as submitted, totaling $142,805,943 for all pipe, have not fully reflected the recent increases in pipe price in the United States as to the portions of the pipe to be shipped in the future from United States sources, nor does it include the full amount of Dominion taxes payable. Trans-Canada's figures have therefore been adjusted upward to reflect the additional pipe price, together with the corresponding additions in duty and sales tax, an increase in freight rates and taxes not previously included by an amount of $2,218,438 to a total figure of $145,024,381.

In reviewing Trans-Canada's estimated costs for installing pipe, aerial maps of the route were studied, field notes were reviewed, and the route was discussed in detail with personnel familiar with the project.. The presently estimated cost of stringing and installing the pipe complete for the 586-mile section of 34" pipe from the Alberta-Saskatchewan border to a point approximately 12 miles east of Winnipeg is $5.25 per foot. For

the entire section of 30" line from the point near Winnipeg, Manitoba, to Toronto Junction, a total of 1,251 miles, Trans-Canada's present estimated cost of installing such pipe is $11.64 per foot. The 25 miles of 24" Sheridan lateral extending from Sheridan, Ontario, up to Toronto Juction is estimated at $4.40 per foot for installation cost, and the 310-mile section of 20" pipe, extending from Toronto Junction to Montreal, Quebec, has currently estimated installation cost of $4.02 per foot. The cost of laying the Ottawa lateral, 40 miles of 12-3/4" pipe, is $3.41 per foot. The above unit costs presently estimated by Trans-Canada are very close to those originally estimated by Canadian Bechtel Limited for such pipelines. A test of the adequacy of these figures has been obtained in connection with the accepted bids by Canadian Bechtel Limited in the amount of $5.25 per foot, and by Majestic Contractors in the amount of $5.00 per foot, covering the 200 miles of 34" line being installed at the present time. These bids confirm the estimated costs for installing 34" pipe. It is believed by Trans-Canada personnel that these prices can be maintained, or perhaps bettered slightly in practice, when it is possible to encourage bidding from more contractors. Based on the above information, and on comparisons with accepted contractors' bid prices on the Westcoast Gas Transmission Company and Pacific Northwest Pipe Line Corporation projects, it is believed that the estimated costs of installing pipe used by Trans-Canada are adequate.

Based on information understood to have been given to Trans-Canada personnel by contractors interested in bidding on portions of the line, it is believed that there will be no difficulty in obtaining an adequate number of trained personnel for the necessary crews to install the pipe on the schedule proposed by Trans-Canada.

As to compressor stations, some proposed by Trans-Canada will have centrifugal compressor units of 7,600 h.p., while other stations will have reciprocating units of 2,500 h.p. The presently estimated cost per installed horsepower as used by Trans-Canada is $368 for the initial unit in a centrifugal station, with additional units to be added at an estimated cost of $280. Similarly, for reciprocating stations, an initial unit in a new station is estimated at $450 per installed horsepower, with additional units estimated at $280. Based on recent known experience of pipelines in the United States for the installation of similar centrifugal and reciprocating units, adjusted to reflect the differences occurring by reason of duty, sales tax and additional labor costs in connection with installation in Canada, it is believed these estimated costs of compressor stations used by Trans-Canada are adequate.

Following check, it is believed that the estimates as to cost of providing housing at compressor stations of $60,000 per station used by Trans-Canada are adequate.

With regard to metering and regulating stations, with the exception of the Ottawa Station on the 12-3/4" line, estimated at $70,000 the remaining 42 measuring and regulating stations have been estimated by Trans-Canada at either $80,000 or $100,000 each. It is believed that these estimates are adequate to cover the costs of such stations.

The above estimated figures for the cost of the pipeline (after adjustment for changes in the cost of pipe) and compressor stations, housing, and metering and regulating stations, do not include the allowance

for contingencies. After including the recomputed contingency allowance (in accordance with the formula used by Trans-Canada, and believed to be adequate) to reflect the pipe price adjustments made it is believed that the resulting total costs of construction are adequate for the project. Such costs through the 1958 construction season and including $119,530,841 of costs estimated for the Crown Corporation section, total $331,740,860, exclusive of the distribution of preliminary costs incurred prior to June 7, 1956, but allocable to pipeline construction, and also excluding interest during construction. This corresponds to Trans-Canada's estimated figure for the same construction of $328,322,000.

The total estimated cost of facilities shown on Exhibit 7, Schedule 1, for Plan 1 and Exhibit 8, Schedule 1, for Plan 2, construction cost details of which are developed in Exhibit 9, includes interest during construction at a rate of 7% per annum, which percentage reflects the higher costs of capital in Canada as compared with such costs in the United States. Since it is expected that under either Plan 1 or Plan 2 service will be commenced on a limited basis through a portion of the facilities commencing November 1, 1957, it has been determined, following discussion with Trans-Canada's auditors, that the portion of line completed and so placed in service on a limited basis at November 1, 1957, shall be considered as being only partially in service for the period from November 1, 1957, to November 1, 1958, when the entire line is assumed to go into full service. As to the amount included in the account for construction work in progress at November 1, 1957, a portion thereof, computed by applying to such portion a percentage obtained by dividing (a) the

estimated sales revenues for the 12-months period commencing November 1, 1957, by (b) the estimated sales revenues for the 12-months period commencing November 1, 1958 (being the first twelve months during which the line is estimated to be in full service), is considered as having gone into service at that date. The remaining portion of the figure for construction work in progress at November 1, 1957, is considered as remaining in the construction work account until November 1, 1958, and is subject to continuing accumulation of interest during construction at the 7% per annum rate. The computation as to the amount of interest during construction charged during the year commencing November 1, 1957, is shown on Exhibit 7, Schedule 1, as to Plan 1 and Exhibit 8, Schedule 1, as to Plan 2. Depreciation charges are considered to commence at November 1, 1957, as to the portion of the plant considered as going into service at that date.

With regard to the Crown Corporation section of the Trans-Canada line extending from the Manitoba-Ontario border to Kapuskasing, Ontario, it is presently proposed that construction on this section be completed over the two construction years 1957 and 1958 instead of the entire section being constructed during the year 1957 as had been proposed originally. The agreed-upon figure for interest during construction on the Crown Corporation section, reflecting the Crown Corporation's lower cost of money, is 3-1/2% per annum.

Trans-Canada has discussed with the Crown Corporation and is understood to be working out an agreement to reflect the principle of the two-year construction program, with the commencement of rental payments and

accumulation of liability as to minimum rental payments as of the dates of placing each portion in service, whether for full or partial use.

It is proposed by Trans-Canada that the facilities of Niagara Gas Transmission Limited be acquired by Trans-Canada at the time the main line is placed in service, estimated at November 1, 1958. The estimated cost of acquisition at that date is $5,400,000. Although no firm obligation appears to exist for Trans-Canada to acquire the facilities of Niagara at that date, such acquisition is understood to be the intent of the parties and of the two Canadian banks which have financed the present Niagara facilities by the purchase of Niagara's debentures. In addition, such acquisition is necessary if Trans-Canada is to reach several of its proposed markets which lie between Sheridan, Ontario, and the point of connection of Niagara with Tennessee Gas Transmission Company at the international border near Niagara Falls, New York. Also, by acquiring Niagara, Trans-Canada gains a direct interconnection with Tennessee Gas Transmission Company.

In general, with the exception of adjustment to the price of pipe not yet delivered to Trans-Canada, Trans-Canada's figures as to construction costs of the facilities proposed have been adopted for the purposes of this report.

B. COSTS OF OPERATION AND MAINTENANCE

Following comparison with known costs of pipelines in operation in the United States and of estimated costs related to new projects in process of construction in both the United States and in western Canada, the

estimated unit costs for "Pipeline Maintenance and Patrol" used by Trans-Canada in its studies have been adopted for the purposes of this report, as follows:

(1) For the 586 miles of 34" line, extending from the Alberta-Saskatchewan border to a point 12 miles east of Winnipeg, $400 per mile of line per year.

(2) For the 1,251 miles of 30" line, extending from the point near Winnipeg to Toronto Junction, $700 per mile of line per year.

(3) For the 451 miles of line in the eastern section of the Trans-Canada project, including the Niagara facilities, the portion of lateral line from Sheridan, Ontario, to Toronto Junction, the Montreal line from Toronto Junction to Montreal, Quebec, and the Ottawa lateral, $300 per mile of line per year.

Costs of communications, based on a proposal received by Trans-Canada from the Trans-Canada Telephone System, have been estimated at $135 per mile of line.

Based on operating experience figures obtained relating to both centrifugal and reciprocating types of compressor stations in the United States, compressor station operation and maintenance expense has been estimated in this report on the basis of $8 per year per installed horsepower for centrifugal compressor units, and $16 per year per installed horsepower for reciprocating compressor units. Trans-Canada had separately estimated

compressor station operating labor and station maintenance, compressor unit overhaul costs, and compressor unit operating and maintenance costs (excluding fuel). As is shown in the following tabulation, the cost figures estimated for the purposes of this report are less than those of Trans-Canada during the early years of operation, but are above the Trans-Canada figures for the last year estimated:

	Annual Compressor Station Operating and Maintenance Expense	
Year of Operation	As Estimated by Trans-Canada	As Estimated by Commonwealth Services Inc.
1st Year (1957-58)	-	$ 70,400*
2nd Year (1958-59)	$ 552,400	401,600
3rd Year (1959-60)	806,300	601,600
4th Year (1960-61)	1,257,600	1,168,000
5th Year (1961-62)	1,557,600	1,588,800
6th Year (1962-63)	1,679,200	2,070,400

*During the first year of operation compressors installed to be run only for testing and training purposes; expense estimated at one-half rate for a full year.

Following check, the annual operating expense figure for operation of compressor station housing facilities, estimated by Trans-Canada at $7,000 per year per compressor station, has been adopted for the purposes of this report.

Based on experience of pipelines operating in the United States, the estimated annual cost of operation and maintenance of metering and

regulating stations has been reduced for purposes of this report to $6,000 per year per station from the $10,000 per year used by Trans-Canada.

Following check, the flat figure of $75,000 for the first year and $250,000 per year thereafter included in operating and maintenance expense by Trans-Canada to cover contingencies has been adopted as reasonable for the purposes of this report.

Based on experience data obtained from pipeline companies in the United States, the uniform figure of 40% of operation and maintenance expense, including the allowance for contingencies, applied by Trans-Canada in estimating administrative and general expenses, has been increased as to the earlier years of operation, as follows:

1st Year (1957-58)	50%
2nd Year (1958-59)	47-1/2%
3rd Year (1959-60)	45%
4th Year (1960-61)	42%
Subsequent Years	40%

With regard to depreciation, the 3-1/2% book figure used by Trans-Canada has been adopted as reasonable for the purposes of this report. It has been noted above that depreciation is commenced with regard to the 12 months beginning November 1, 1957, as to the portion of facilities constructed at that date considered to be in partial service. For tax purposes, the declining balance method of computing tax depreciation at the maximum rate of 6% per annum, indicated by Trans-Canada, has been adopted in computing tax depreciation for the purposes of this report.

It should be noted that under Canadian tax law, depreciable property cost includes all direct costs and overhead costs of depreciable property, including the charge for interest during construction and additional costs of financing, such as standby fees associated with commitments to purchase mortgage bonds at a future date.

Following investigation and check, the method adopted by Trans-Canada for the computation of general taxes to be paid has been adopted as reasonable and used for such general tax computations herein.

Estimated operation and maintenance expenses and general taxes, estimated in accordance with the factors adopted above, are set forth in Exhibits 7 and 8, Schedules 2 of the Appendix hereto. The provision for depreciation is set forth in Exhibits 7 and 8, Schedules 6. Dominion of Canada Corporation Income Tax is computed at the rate of 47% presently in effect.

VII. ESTIMATED REQUIREMENTS OF MARKETS AND GAS PURCHASE REQUIREMENTS

VII. ESTIMATED REQUIREMENTS OF MARKETS AND GAS PURCHASE REQUIREMENTS

A. PRINCIPAL MARKETS STUDIED

The estimated requirements of the principal markets proposed to be served by Trans-Canada were studied in varying amounts of details as indicated below:

1. Saskatchewan Power Corporation

The Saskatchewan Power Corporation presently proposes to introduce natural gas service into the communities of Swift Current, Moose Jaw and Regina, Saskatchewan, to both general service and industrial customers. The company is understood to be currently laying a 12" gas transmission line from a natural gas field in Saskatchewan near the Alberta border to provide a portion of the service required for the above communities. The balance of its requirements are expected to be purchased from Trans-Canada and contract negotiations are currently in progress.

We are informed by Fish Service and Management Company that the Saskatchewan Power Corporation now plans to contract for the following maximum daily volumes of gas:

First Year	(1957-58)	9,500 Mcf
Second Year	(1958-59)	11,500 Mcf
Third Year	(1959-60)	13,500 Mcf
Fourth Year	(1960-61)	15,000 Mcf
Fifth Year	(1961-62)	17,000 Mcf
Sixth Year	(1962-63)	19,000 Mcf

Since gas is to be purchsed from Trans-Canada on a demand-commodity rate, encouraging the taking of gas at as high an annual load factor as is possible, and since local gas is understood to be limited as to reserves and is customarily purchased on a flat rate per Mcf, making it the most economical source of gas to use for meeting peak load requirements, it is estimated that the Saskatchewan Power Corporation will take gas from Trans-Canada on a 100% annual load factor basis. The resulting estimated annual gas purchase requirements from Trans-Canada are set forth below, together with annual total requirements of these communities, as furnished by Fish Service and Management Company:

	Estimated Total Annual Requirements MMCF	Estimated Annual Purchase Requirements from Trans-Canada MMCF	Percent of Total Requirements to be Supplied by Trans-Canada
First Year (1957-58)	7,076	3,294	46.6%
Second Year (1958-59)	8,404	3,988	47.5%
Third Year (1959-60)	9,899	4,681	47.3%
Fourth Year (1960-61)	11,191	5,201	46.5%
Fifth Year (1961-62)	12,608	5,895	46.8%
Sixth Year (1962-63)	13,920	6,588	47.3%

It is believed the indicated annual gas purchase requirements from Trans-Canada of the Saskatchewan Power Corporation are conservative and is expected that final negotiations of the contract may result in a commitment in excess of the volumes shown herein.

2. Plains Western Gas & Electric Company

Plains Western Gas & Electric Company holds a franchise and permit and proposes to institute gas service in the community of Brandon, Manitoba. In connection with its application for a provincial permit, the company prepared estimates of its natural gas requirements. Brandon was visited for purposes of inspecting the community and the company's estimates were reviewed in detail in the field at that time and adjusted in minor amounts. The resulting estimated natural gas requirements of Plains Western Gas & Electric Company, both annual and maximum day, are set forth below:

	Total Annual Requirements, MMCF		Maximum Day Requirements, MCF
First Year (1957-58)	579	Firm, Small General Service	4,115
	352	Industrial Interruptible	
	931		
Second Year (1958-59)	1,104		5,486
Third Year (1959-60)	1,262		6,735
Fourth Year (1960-61)	1,401		7,626
Fifth Year (1961-62)	1,539		8,463
Sixth Year (1962-63)	1,656		9,070

3. Manitoba Power Corporation

A steam-electric generating station is being constructed by the Manitoba Power Corporation north of Brandon and near the lateral line proposed to be constructed by Plains Western Gas & Electric Company to serve Brandon. In its early years of operation it is proposed by Manitoba Power Corporation that this plant be operated on winter time peak service with

the annual period of operation being expanded from year to year. Although such power plant load occurs at the same time as Trans-Canada's firm peak requirements, the location of this plant along the Alberta-Winnipeg section of the Trans-Canada line would make the rendering of service appropriate for a limited period of time. Such rendering of gas service to the plant during its early years of operation would permit deferment by Manitoba Power Corporation of an investment in a railroad siding and fuel handling equipment, estimated to be in excess of $100,000, for a period of at least two years. A special contract providing service through the winter of 1960-61 at a price in line with that of lignite, the competing fuel, should permit the attachment of this load. Although no contract has been signed to provide service to this load, it is believed such service on a limited basis is feasible and, therefore, it is estimated that the following volumes of gas will be sold for delivery to the Manitoba Power Corporation at a price to Trans-Canada conservatively assumed to be 25¢ per Mcf at Trans-Canada's main line for the first two years of service and 20¢ per Mcf for the succeeding two years when the service would become interruptible:

	Annual MMCF	Peak Day MCF
First Year (1958-59)	1,000	20,000
Second Year (1959-60)	1,240	40,000
Third Year (1960-61)	2,100	40,000*
Fourth Year (1961-62)	3,100	40,000*

* Service assumed to be interruptible, if required, in third and fourth years.

4. Intercity Gas Company

Intercity Gas Company has franchises and provincial permits to initiate gas service in the Manitoba communities of Portage la Prairie, Rivers, Neepawa and Hamiota. The company is owned by Northland Utilities Limited and Osler, Hammond & Nanton Investment Co. of Winnipeg. The communities were visited and basic data relating to the company's estimates of requirements were reviewed. Following minor adjustments, the estimated volumes of gas required as set forth below:

	Annual Volumes			Firm
	Firm General Service MMCF	Seasonal Industrial MMCF	Total MMCF	Maximum-Day Requirements MCF
First Year (1957-58)	923	92	1,015	7,390
Second Year (1958-59)	995	97	1,092	8,027
Third Year (1959-60)	1,065	102	1,167	8,578
Fourth Year (1960-61)	1,136	102	1,238	9,153
Fifth Year (1961-62)	1,219	102	1,321	9,744
Sixth Year (1962-63)	1,294	102	1,396	10,344

5. Winnipeg & Central Gas Company

The Winnipeg & Central Gas Company at the present time supplies propane-air gas and propane in portions of the Greater Winnipeg area. The company indicates that, upon the arrival of natural gas, it expects to extend service throughout the area, in so far as is practicable.

The area was visited in order to appraise the possibilities for development of gas loads. A report on the area by Arthur D. Little, Inc.,

was also reviewed, together with basic data and estimates prepared by the company. The provisions of and volumes included in the service contract between Winnipeg & Central and Trans-Canada, dated May 12, 1955, were studied in detail, particularly as to minimum "take-or-pay-for" provisions. In addition, the Industrial Firm and Industrial Seasonal service which Winnipeg & Central has contracted to supply to Canada Cement Company Limited was analyzed in detail. The results of such studies of the Greater Winnipeg area market requirements are set forth below:

	Annual Requirements - MMCF			
	Firm General Service	Firm Industrial Service	Seasonal Industrial Service	Total
First Year (1957-58)	1,665*	1,843	1,364	4,872
Second Year (1958-59)	2,920*	1,843	1,364	6,127
Third Year (1959-60)	3,950*	1,843	1,364	7,157
Fourth Year (1960-61)	5,116	1,843	1,364	8,323
Fifth Year (1961-62)	6,384	1,843	1,364	9,591
Sixth Year (1962-63)	7,372	1,843	1,364	10,579

* Based on minimum "take-or-pay-for" provisions of May 12, 1955 contract.

	Maximum Day Requirements - Mcf			
	Firm General Service	Firm Industrial Service	Seasonal Industrial Service	Total
First Year (1957-58)	9,120*	5,500	-	14,620
Second Year (1958-59)	16,000*	5,500	-	21,500
Third Year (1959-60)	21,650*	5,500	-	27,150
Fourth Year (1960-61)	27,000*	5,500	-	32,500
Fifth Year (1961-62)	33,550	5,500	-	39,050
Sixth Year (1962-63)	40,850	5,500	-	46,350

* Based on minimum "take-or-pay-for" provisions of May 12, 1955 contract.

It is believed that the above estimated volumes are conservative and, as a result of a vigorous sales campaign as is proposed by Winnipeg & Central, may be exceeded.

6. Northern Ontario Natural Gas Company Limited

The Northern Ontario Natural Gas Company Limited is a new company which has obtained permits and franchises covering 25 communities located adjacent to the Trans-Canada line in Ontario from Kenora, Ontario, near the Manitoba border to North Bay, Ontario. None of the communities in the area has had gas service of any type up to this time. The company proposes to install natural gas distribution systems in the various communities throughout the area, and, in addition, proposes to serve substantial amounts of gas to a substantial number of industrial customers throughout its territory, notably paper mills in the western zone, which extends from Kenora, Ontario, to a point beyond Geraldton, Ontario, and

both paper mills and industrial loads associated with the minerals industry in the northern Ontario zone, which extends from near Geraldton to include North Bay, Ontario. The largest industrial customer associated with processing of minerals which Northern Ontario proposes to serve is the plant of the International Nickel Company, Inc. near Sudbury, Ontario. Northern Ontario Natural Gas Company proposes to build a lateral line from Trans-Canada's main line to serve this major customer and the community of Sudbury.

We have reviewed the report on Northern Ontario Natural Gas Company Limited prepared by Fish Service and Mangement Company, the precedent agreement between Northern Ontario and Trans-Canada, the draft of proposed contract for natural gas for the northern Ontario zone, and have discussed the plans of Northern Ontario for load development with personnel of the company and also with market development personnel of Trans-Canada. The results of such reviews and investigations of the Northern Ontario Natural Gas Company Limited market are set forth below as to the company's two service zones:

Western Ontario Zone

	Annual Volumes, MMcf				Maximum Daily Volumes, Mcf		
	Firm General Service	Firm Industrial	Interruptible Industrial	Total	General Service	Industrial	Total
First Year (1957-58)	740	3,151	2,332	6,223	9,100	8,900	18,000
Second Year (1958-59)	1,207	3,413	2,423	7,043	11,700	11,000	22,700
Third Year (1959-60)	1,536	3,413	2,807	7,756	14,000	11,000	25,000
Fourth Year (1960-61)	1,829	3,413	3,383	8,625	16,800	11,000	27,800
Fifth Year (1961-62)	2,143	3,413	4,279	9,835	20,700	11,000	31,700
Sixth Year (1962-63)	2,459	3,413	3,963	9,835	20,700	11,000	31,700

Northern Ontario Zone

	Annual Volumes, MMcf					Maximum Daily Volumes, Mcf		
	Firm General Service	Firm Indus-trial	Inter-ruptible Industrial	Seasonal Off Peak	Total	General Service	Indus-trial	Total
First Year (1958-59)	1,776	1,241	5,346	2,300	10,663	23,600	4,000	27,600
Second Year (1959-60)	2,964	2,172	5,739	4,511	15,386	28,050	7,000	35,050
Third Year (1960-61)	3,665	6,205	8,435	3,183	21,488	39,000	20,000	59,000
Fourth Year (1961-62)	4,231	6,205	9,544	2,447	22,427	44,400	20,000	64,400
Fifth Year (1962-63)	4,783	6,205	10,481	1,914	23,383	49,200	20,000	69,200

It is believed that the above estimated volumes are attainable, based on the load development program proposed by Northern Ontario Natural Gas Company Limited

7. Union Gas Company of Canada, Limited

Union Gas Company of Canada, Limited furnishes natural gas service at retail to over 93,000 customers located in a large number of communities in the Chatham-London-Sarnia-Windsor portion of the Ontario peninsula, the area having an estimated population of 314,000 in 1956. In addition to its retail market, Union also sells substantial quantities of gas to United Fuel Investments, Limited, serving the area in and around Hamilton, Ontario, to Dominion Natural Gas Company, Limited, which distributes natural gas in the southern part of the province of Ontario in the area between Kingsville and St. Catharines and indirectly provides partial service to the Central Pipe Line Company, Limited serving six small communities, including Aylmer, Ontario, with gas Central purchases from Dominion.

The markets served by Union, United, Dominion and Central have been in part supplied by local gas purchased or produced in southern Ontario, in part by manufactured gas and in part with gas purchased by Union Gas Company of Canada, Limited from Panhandle Eastern Pipe Line Company through a connection under the Detroit River near Windsor. Union has developed a substantial underground storage facility in the depleted Dawn field in Lambton County. The Dawn area is connected to the facilities of Panhandle Eastern by a main transmission line and in turn the area becomes the chief distribution center for gas supplied by Union to its various retail and wholesale customers.

On June 30, 1956, the Federal Power Commission issued an order granting the export by Panhandle Eastern of additional gas to Union pursuant

to a contract between the parties, parallel in its terms to the contract between Union and Trans-Canada. A petition for rehearing and request for stay of the order, filed with the Federal Power Commission by the City of Detroit, Wayne County and the Michigan Consolidated Gas Company, was denied by the Commission August 23, 1956. It is not now known whether further appeals to the courts will be taken but it is assumed herein that the order will become final. This contract provides for an initial 10,500 MMcf per year scaling upwards over a six-year period to an annual volume of 15,500 MMcf of gas. The bulk of these annual volumes is to be delivered during seven summer months and deliveries during the winter may be interrupted and curtailed to zero on any day. In connection with this contract, Union proposes to construct a large diameter line (24" or 26" diameter) from the Dawn storage field area to Hamilton, Ontario and to a connection with Trans-Canada near Sheridan, Ontario. This pipeline, which is presently scheduled for completion in the fall of 1957, will be constructed with lateral lines to serve the communities of St. Marys, Stratford, Kitchener, Waterloo and Guelph, Ontario, along its route. Union will take gas from Panhandle Eastern under the new contract until the Trans-Canada pipeline is completed to Sheridan, Ontario, about November 1, 1958. At that time Union, pursuant to its contract with Panhandle Eastern, will advise Panhandle Eastern that Trans-Canada gas is now available to Union and that deliveries under Union's contract with Panhandle Eastern shall cease one year after the date of such notice. Trans-Canada's parallel contract with Union will thereupon become effective and commencing about November 1, 1959, it is the present plan of Union to take slightly in excess of its minimum "take-or-pay-for" volumes. It is further understood from discussions with personnel of Union and

Trans-Canada that it is Union's present intention to take additional substantial volumes of excess gas from Trans-Canada commencing with the availability of such gas, assumed at November 1, 1958. For that year the annual volume is estimated at 5,000 MMcf and for subsequent years at 7,500 MMcf. The contract volumes and estimated receipts of both contract gas and excess gas by Union is summarized below:

	Annual Volumes, MMcf			
	Contract Amount	Estimated Receipts Under Contract	Excess Gas	Total Estimated Gas Receipts
First Year (1958-59)	-	-	5,000	5,000
Second Year (1959-60)	16,500	14,000	7,500	21,500
Third Year (1960-61)	20,500	17,400	7,500	24,900
Fourth Year (1961-62)	24,500	20,800	7,500	28,300
Fifth Year (1962-63)	28,000	23,800	7,500	31,300

The declining local gas production in the southern Ontario fields, the arrangement for the termination of the new Panhandle Eastern contract on or about November 1, 1959, the addition of new communities not now served with natural gas but to be served from the Dawn storage field to Hamilton line, the growing industrial character of many of the principal cities throughout the Ontario peninsula area and the fact of the reduced availability of local natural gas to meet the requirements of the area since a time commencing during World War II, offers a strong possibility that actual requirements of gas from Trans-Canada will be in excess of those estimated above. Because of the area's long experience with natural gas, the territory served by Union both at retail and at wholesale offers excellent possibilities for sound but rapid load development as increased volumes become available to Union.

8. The Consumers' Gas Company Of Toronto

The Consumers' Gas Company of Toronto now serves the Toronto metropolitan area. Since November 1954, it has had natural gas available for distribution to its customers which it obtains from gas fields in Texas and Louisiana, transported through the facilities of Tennessee Gas Transmission Company and Niagara Gas Transmission Limited. Upon the arrival of western Canadian gas at Sheridan, Ontario, through the transcontinental facilities of Trans-Canada, Trans-Canada proposes to acquire the facilities between Sheridan and the international border near Niagara Falls, New York, from Niagara Gas Transmission Limited. These facilities are currently owned by a subsidiary of Trans-Canada, Western Pipe Lines and leased to Niagara. At that time, Consumers' will discontinue taking gas from the United States and will take its supply from Trans-Canada. Consumers' and Trans-Canada are presently working out the details of the contract between the parties for such natural gas.

In the proceedings leading to the certification by the Federal Power Commission of deliveries by Tennessee Gas Transmission Company to Niagara Gas Transmission Limited, the fifth-year requirements of Consumers' after the introduction of natural gas were estimated at an annual volume of 21,327,056 Mcf with a peak-day requirement (after 18,000 Mcf of manufactured gas peak shaving) of 108,624 Mcf. The fifth year of natural gas for Consumers' would correspond to the year 1958-59 in the estimates for Trans-Canada. In addition to the present Consumers' service area, the estimate for the purposes of this report includes volumes for the nearby communities, east of Toronto, of Whitby, Oshawa and Bowmanville, not now

served by Consumers'. The volumes used by Trans-Canada for Consumers' and adopted herein also correspond to the volumes estimated by Ford, Bacon & Davis, Incorporated in a report dated December 7, 1955, including, among other things, natural gas sales estimates. The estimated annual volumes for Consumers' entire proposed service area expressed in MMcf per year and the corresponding peak-day volumes in Mcf, are as follows:

	Annual Volumes - MMcf	Maximum Daily Volumes - Mcf
First Year (1958-59)	17,310	58,690
Second Year (1959-60)	19,568	66,209
Third Year (1960-61)	21,693	73,379
Fourth Year (1961-62)	23,318	78,865
Fifth Year (1962-63)	25,567	86,595

According to figures submitted by Niagara Gas Transmission Limited in the Midwestern Gas Transmission Company case before the Federal Power Commission (Exhibit 95 Revised, Docket G-9454), expected sales to Niagara (which includes principally sales to Consumers' at Toronto) for the year 1956-57 are expected to be an annual volume of 11,580,264 Mcf with a maximum day requirement of 79,178 Mcf. This would correspond to the third year of operation of Consumers' on natural gas. The development of markets at Consumers' has, until recently, been running behind the estimates which were presented in the original Niagara Gas Transmission Limited case. It is believed that the figures available for use in this report reflect this lower rate of development. However, it is understood that in recent months the program of Consumers' for stepping up its sales of natural gas to its

customers has been increasingly successful and it is therefore believed that the figures used in this report may well be exceeded in actual practice.

9. Lakeland Natural Gas Limited

Lakeland Natural Gas Limited was formed by Great Northern Gas Utilities Limited, now providing service to certain communities in western Canada, in cooperation with the Toronto investment firm of Gardiner, Watson Limited. No gas service is presently being rendered in the 12 towns and six townships for which the company currently holds franchise and Ontario Fuel Board permit authorizations, although the company is in process of negotiation to acquire existing municipal distribution systems in the communities of Kingston and Brockville, Ontario and acquire a franchise and permit to serve Cornwall, Ontario. The market information reviewed consisted of a study of requirements of the communities for which Lakeland made application for a certificate of convenience and necessity to the Ontario Fuel Board early in 1956 and for which the company has subsequently received authorization from the Fuel Board.

Although the communities proposed to be served by Lakeland are in general small, they are all located along the northern shore of Lake Ontario or along the St. Lawrence River, within which area there exists substantial attractive industrial loads. From review of the market data available, together with field check of portions of the market, it is believed that the following annual volumes of sales are attainable, corresponding to the following maximum daily requirements:

	Annual Volumes MMcf	Maximum Daily Volumes - Mcf
First Year (1958-59)	1,425	3,900
Second Year (1959-60)	2,371	6,500
Third Year (1960-61)	2,895	7,900
Fourth Year (1961-62)	3,771	10,350
Fifth Year (1962-63)	4,001	11,000

10. Interprovincial Utilities Limited

Interprovincial Utilities Limited has acquired the manufactured gas distribution system in the City of Ottawa, Ontario and proposes to expand such system and in addition to make sales across the Ottawa River in Quebec in the communities of Hull and Gatineau where substantial potential industrial loads, chiefly associated with the pulp and paper industry, exist.

While discussions have been had with officials of Interprovincial as to their plans and prospects, no information was developed which was thought to be more reliable than the December 7, 1955 estimate of this market by Ford, Bacon & Davis, Incorporated. Therefore, the figures as to annual and maximum daily volumes for Interprovincial set forth in that report were accepted without further detailed check, as follows:

	Annual Volumes MMcf	Maximum Daily Volumes - Mcf
First Year (1958-59)	9,803	5,195
Second Year (1959-60)	10,254	9,781
Third Year (1960-61)	10,705	14,363
Fourth Year (1961-62)	11,155	19,927
Fifth Year (1962-63)	11,617	25,531

11. Quebec Natural Gas Corporation

Quebec Natural Gas Corporation proposes to acquire the manufactured gas distribution system and facilities of the Quebec Hydro-Electric Commission and establish a separate operating company to serve the Greater Montreal area. Information as to the markets proposed to be served by Quebec Natural Gas Corporation was set forth in detail in Exhibit 62 of the hearing of the Tennessee Gas Transmission Company, et al. before the Federal Power Commission in Docket G-9449. In addition to the volumes set forth in Exhibit 62, Trans-Canada has assumed the availability in the first and second years of operation with gas from western Canada of 5,000,000 Mcf annually of interruptible gas for sales in the Montreal market. For the third year of operation, Trans-Canada has assumed the availability of 3,000,000 Mcf, with none of such gas assumed to be available beyond the third year of operation. The resulting annual and maximum day volumes are as follows:

	Annual Volumes, MMcf				Maximum Daily Volumes - Mcf	
	Firm		Interruptible			
	Plan I	Plan II	Plan I	Plan II	Plan I	Plan II
First Year (1957-58)	-	13,400	-	-	-	38,500
Second Year (1958-59)	13,400	16,790	5,000	5,000	38,500	48,000
Third Year (1959-60)	16,790	21,825	5,000	5,000	48,000	62,000
Fourth Year (1960-61)	21,825	28,205	3,000	3,000	62,000	79,000
Fifth Year (1961-62)	28,205	31,510	-	-	79,000	90,000
Sixth Year (1962-63)	31,510	35,214	-	-	90,000	100,600

If Plan 1 is followed, the first year above would be 1958-59 and the interruptible gas would be as shown. If Plan 2 is followed, the first year above would be 1957-58 and the interruptible volumes above would be moved down by one year to the second, third and fourth years.

Commonwealth Services Inc. is presently engaged in a detailed field study of the Montreal, Quebec, market which will not be completed at the date of this report but which study indicates, on the basis of preliminary conclusions as to the market, the verification of sales at least equal to those presented by Quebec Natural Gas Corporation in its Federal Power Commission presentation in Docket No. G-9449.

B. OTHER MARKETS TO BE SERVED

The remainder of the markets proposed to be served by Trans-Canada is made up of smaller operations, totaling altogether something less than 8% of the entire Canadian market estimated for the year commencing November 1, 1962. Because of the limitations of time in the preparation of this study, reliance without field check has been made on the estimates included in the Ford, Bacon & Davis, Incorporated December 7, 1955 market report, except as is otherwise noted:

1. The following companies, which would be served by Trans-Canada through the facilities of Niagara Gas Transmission Limited to be acquired by Trans-Canada on or about November 1, 1958, are areas which now have some natural gas service but require additional or supplemental amounts from Trans-Canada:

   (a) The Grimsby Natural Gas Company, Limited

   (b) Provincial Gas Company Limited

   (c) Dominion Natural Gas Company, Limited

   The figures included in the market estimates of this report as to Grimsby and Provincial are the Ford, Bacon & Davis, Incorporated figures, while the figure for Dominion is a lesser figure as estimated by Trans-Canada.

2. As to the central Ontario towns below North Bay, Ontario--Barrie, Orillia, etc.--there is a possibility that these communities may be included in the project of Northern Ontario Natural Gas Company Limited.

There is no present gas service in these communities.

3. The Lake Shore Group communities of Kingston, Ontario and Brockville, Ontario now have municipal gas service. Cornwall is contemplating a municipal gas system. As has been stated there is a possibility that these communities may be included in the Lakeland Natural Gas Limited development. It is believed that these communities will have a better chance for full development of natural gas markets under Lakeland operation than under municipal operation, due in part to the limitations on municipal financing provided by the laws of the Province of Ontario as to such financing.

C. SUMMARY OF ESTIMATED MARKET REQUIREMENTS

The requirements estimated for the various markets as set forth in Sections A and B above are summarized for the Plan 1 construction schedule by the years of operation of Trans-Canada in Exhibit 7, Schedule 3 and for Plan 2 in Exhibit 8, Schedule 3 in the Appendix to this report. The market requirement totals by such years expressed in MMcf are as follows:

	Construction Plan 1	Construction Plan 2
First Year (1957-58)	16,336	29,736
Second Year (1958-59)	92,537	95,927
Third Year (1959-60)	125,239	130,274
Fourth Year (1960-61)	145,138	151,518
Fifth Year (1961-62)	160,827	164,132
Sixth Year (1962-63)	170,393	174,097

As to their general characteristics the market areas proposed to be served by Trans-Canada fall into several broad geographical categories with marked differences. In Saskatchewan and Manitoba the area traversed by the pipeline is of an agricultural nature with some substantial industries beginning to develop in the larger communties and in particular in Winnipeg, Manitoba. The area from Winnipeg across western and northern Ontario and extending down below North Bay, Ontario, is principally dependent upon natural forest and mineral resources. Substantial industrial enterprises built upon these natural resources are now in existence or in contemplation through this area, and it is to be expected, as has been experienced in the previously undeveloped portions of the Pacific Northwest, that the availability of natural gas throughout the area will accelerate such industrial development materially. The areas in southern Ontario and the Ontario peninsula throughout the triangle from Windsor to Niagara Falls to Toronto have enjoyed natural gas service in

many instances for years, although the volumes available have been somewhat limited with relation to the potential market. While the countryside is agricultural in this area, the strength of the market potential is in the substantial and rapid industrial development of the many cities and communities therein. This area forms a reasonably well developed existing market in which Trans-Canada will displace entirely Tennessee Gas Transmission Company as a supplier and will displace in part Panhandle Eastern Pipe Line Company as a supplier. A portion of the market will continue to be supplied with gas produced or purchased locally, but such gas can supply only a portion of the rapidly developing market. To the east of Toronto, along the shore of Lake Ontario and the St. Lawrence River, there are many existing industries and small but substantial communities to be served. The Montreal market at the extreme eastern end of Trans-Canada's proposed facilities has been growing slowly on manufactured gas and can be expected to develop rapidly following an aggressive sales campaign proposed for the area upon the introduction of natural gas. The Ottawa, Ontario area offers promise, particularly in terms of industrial markets located across the river from the Dominion's capitol.

Throughout the area from Montreal, Quebec to the lakehead and the western end of Lake Superior, it is to be expected that the new St. Lawrence Seaway, when completed, will offer a stimulus for development, not only as to port facilities but also as to additional industries which will be attracted by the possibilities of low cost water transportation.

It is noted that throughout almost the entire area proposed to be served by Trans-Canada, electric competition is from government-owned and operated utilities. Almost uniformly the need of these utilities is for additional generating capacity to serve rapidly-growing industrial load requirements. As a result, the interest of these governmental agencies in competing for such domestic loads as water heating and cooking is much less strong than might be expected. While domestic space heating will be the key to obtaining new domestic customers by gas distributing companies throughout the area--and such space-heating requirements are high in an area which experiences much more severe winters than is the case in the northern United States--it is expected that the local utilities will achieve considerable success in attaching gas water heating and cooking load in the homes in which they are successful in promoting gas space heating.

D. GAS PURCHASE REQUIREMENTS

Based on the estimated market requirements developed above, together with estimated compressor station fuel, gas required for cleaning, purging, testing and filling the line, and pipeline losses, estimated at 1% of the total of market requirements and compressor fuel requirements, the gas purchase requirements of Trans-Canada for gas from the Province of Alberta for Plan 1 and Plan 2 in MMcf are estimated as follows:

	Construction Plan 1	Construction Plan 2
First Year (1957-58)	19,257	19,158
Second Year (1958-59)	95,938	99,430
Third Year (1959-60)	130,588	135,806
Fourth Year (1960-61)	153,180	159,856
Fifth Year (1961-62)	170,935	174,417
Sixth Year (1962-63)	182,561	186,496

Under Plan 2, in addition to the above volumes of gas from the Province of Alberta, Trans-Canada proposes to purchase from others at Sheridan, Ontario, for the requirements of Quebec Natural Gas Corporation, the cleaning, purging, testing and filling of the Sheridan-Montreal line and pipeline losses for the line, estimated at 1% of market requirements, 13,633 MMcf in the year 1957/58.

The details as to gas purchase requirements are set forth in Exhibit 7, Schedule 4, for Plan 1 and Exhibit 8, Schedule 4, for Plan 2.

VIII. ESTIMATED COST OF GAS PURCHASED

VIII. ESTIMATED COST OF GAS PURCHASED

The gas purchase requirements discussed in Section VII, subsection D of this report, and set forth in Exhibit 7, Schedule 4, for Plan 1 and Exhibit 8, Sechedule 4, for Plan 2, are on Trans-Canada's sales pressure base of 14.73 psia, at a temperature of 60°F. The prices to be paid for gas purchased, as discussed in detail in Section IV of this report, and as set forth on the tabulation on page 8 of that Section are on a pressure base of 14.4 psia, at a temperature of 60°F. Similarly, the 4¢-per-Mcf charge assumed to be made to Trans-Canada by The Alberta Gas Trunk Line Company Limited for transportation service is also on a 14.4 psia, 60°F. base. To correct the prices for gas purchased and for transportation service to the sales pressure base, the price figures, expressed in cents-per-Mcf, are multiplied by 1.022917, the ratio of the respective pressure bases. It is also noted that the price escalations of 0.25¢ per year, commencing January 1, 1960, as shown in the tabulation on page 8 of Section IV, increase at the start of each calendar year, while the pipeline operating years have been estimated to commence on November 1st of each year. The tabulation below shows the cost to Trans-Canada of gas purchased and transported to the Alberta-Saskatchewan border at a pressure base of 14.4 psia and also converted to the sales pressure base of 14.73 psia. The cost figures in cents-per-Mcf on the sales pressure base (the last column) have been used in pricing out the volumes of gas purchased:

Year	Cost of Gas Purchased, ¢ per Mcf pressure base of 14.4 psia, 60°F Purchase Cost	Transportation Cost	Total Cost	Total Cost, at Pressure Base of 14.73 psia 60°F.
First Year (Through 10/31/58)	10.0	4.0	14.0	14.32083
Second Year (1958-59)	10.20833	4.0	14.20833	14.53394
Third Year (1959-60)	10.45833	4.0	14.45833	14.78967
Fourth Year (1960-61)	10.70833	4.0	14.70833	15.04539
Fifth Year (1961-62)	10.95833	4.0	14.95833	15.30112
Sixth Year (1962-63)	11.20833	4.0	15.20833	15.55685

The estimated cost to Trans-Canada at the Alberta-Saskatchewan border of its requirements for gas from the Province of Alberta for the various years of operation for both Plan 1 and Plan 2 is set forth below:

Alberta Gas	Construction Plan 1	Construction Plan 2
First Year (Through 10/31/58)	$ 2,757,333	$ 2,743,154
Second Year (1958-59)	13,943,571	14,451,097
Third Year (1959-60)	19,313,534	20,085,259
Fourth Year (1960-61)	23,046,528	24,050,959
Fifth Year (1961-62)	26,154,969	26,687,754
Sixth Year (1962-63)	28,400,741	29,012,903

Under Construction Plan 2, it is assumed that gas will be available for purchase from others at Sheridan, Ontario. It is assumed for the purposes of this report that the gas will be purchased from Tennessee Gas Transmission Company at Tennessee's New York zone rate of $3.10 per month per Mcf of demand, and 28¢ per Mcf commodity charge, at the connection between Tennessee and Niagara Gas Transmission Company at the international border near Niagara Falls, New York. It is further assumed that Niagara will transport this gas for Trans-Canada, delivering it to Trans-Canada at the connection between the companies near Sheridan, Ontario. Based on the estimated gas purchase requirements of Quebec Natural Gas Company for the year 1957-58 of 38,500 Mcf contract demand and 13,400 MMcf annual volume, both figures increased 1% for pipeline lost and unaccounted for gas, plus an additional 99,600 Mcf for purging, cleaning and filling the Sheridan to Montreal line, at a computed average cost on the Tennessee New York zone rate of 38.69¢ per Mcf, results in a cost of gas purchased from others for the year 1957-58 as shown in Exhibit 8, Schedule 4, of $5,274,575.

In addition to the cost of such gas, the four-party contract between Niagara, Tennessee, The Consumers' Gas Company of Toronto and Trans-Canada provides for a basic rental to be paid by Trans-Canada to Niagara for use of the facilities to supply gas for service to Montreal of $75,000 in the year ending October 31, 1957 and of $250,000 for the year ending October 31, 1958. This agreed rental for the Niagara facilities is shown in Exhibit 7, Schedule 6, and in Exhibit 8, Schedule 6.

IX. ESTIMATED REVENUES

IX. ESTIMATED REVENUES

The estimated revenues for Trans-Canada under Plan 1 and Plan 2 were developed by applying Trans-Canada's proposed zone rates to the sales and maximum daily quantities developed and described in Section VII, Sub-section A. The annual volumes to which the rates were applied are set forth as to Plan 1 in Exhibit 7, Schedule 3, and as to Plan 2 in Exhibit 8, Schedule 3. The resulting revenues obtained are also set forth in the same schedules and are summarized as follows:

	Estimated Revenues	
	Construction Plan 1	Construction Plan 2
First Year (1957-58)	$ 4,794,414	$11,569,614
Second Year (1958-59)	36,150,772	37,743,472
Third Year (1959-60)	49,536,047	51,878,147
Fourth Year (1960-61)	58,357,481	61,293,281
Fifth Year (1961-62)	65,805,425	67,455,125
Sixth Year (1962-63)	70,934,228	72,660,908

The rates proposed to be charged by Trans-Canada for sales of natural gas in its various rate zones are set forth in detail in the following tabulation:

Rate	Rate Zone S1/	M2/	W3/	N4/	C5/	E6/
Contract Demand Rates						
D-90% Take-or-Pay						
Demand Charge, $/Mcf/Mo.	1.00	1.90	2.90	4.10	4.90	5.05
Commodity Charge, ¢/Mcf	17.5	18	23	28	27	27
D-1 - 75% Take-or-Pay						
Demand Charge, $/Mcf/Mo.	1.00	1.90	2.90	4.10	4.40	5.05 7/
Commodity Charge, ¢/Mcf	18	20	25	29.5	30	30 7/
D-2 - 50% Take-or-Pay						
Demand Charge, $/Mcf/Mo.	1.00	1.90	2.90	4.10	4.40	5.05
Commodity Charge, ¢/Mcf	19.5	22.5	27.5	32	32.5	32.5
Development Period, Years	3	3	3	3	3	3
Ceiling, ¢/Mcf, Rates D-1 & D-2 during development period	24.2	31.5	41	51.3	53.2	56.2
IF - Firm Industrial						
Demand Charge $/Mcf/Mo.	.75	1.42	2.18	3.07	3.30	3.65
Commodity Charge, ¢/Mcf						
To a D-1 Customer	18	20	25	29.5	30	30 7/
To a D-2 Customer	19.5	22.5	27.5	32.0	32.5	32.5
Flat Rates						
SGS - (Up to 5000 Mcf/Day)						
3-year development period	24.2	31.5	41	51.3	53.2	56.2
After development period	27.5	38	51	63	65	67.5
OP - Off Peak - 6 Summer Mos.	19	22	28	34	35	36
- 8 Summer Mos.	21	25	31	37	38	39
XS - Interruptible, Seller's option	18	20	25	29.5	30	30
WPS - Winter Peak Shaving	75	75	75	75	75	75

Notes:

1/ Province of Saskatchewan

2/ Province of Manitoba

3/ In Province of Ontario, along Trans-Canada Line, Geraldton and west.

4/ In Province of Ontario, along Trans-Canada line, east of Geraldton to a point south of North Bay.

5/ In Province of Ontario, south of North Bay and to a point on the Montreal line east of Oshawa.

6/ Province of Quebec and in Province of Ontario along Montreal line east of Oshawa.

7/ Under Plan 2, the ED-1 Rate to Quebec Natural Gas Corporation for gas obtained by Trans-Canada from others at Sheridan will be $5.60 per Mcf per month Demand Charge and 33¢ per Mcf Commodity Charge; the EIF Rate will be $3.65 per Mcf per month Demand Charge and 33¢ per Mcf Commodity Charge.

X. RENTAL AND PURCHASE AGREEMENT WITH CROWN CORPORATION RELATING TO CROWN SECTION OF TRANS-CANADA MAIN LINE

X. RENTAL AND PURCHASE AGREEMENT WITH CROWN CORPORATION RELATING TO CROWN SECTION OF TRANS-CANADA MAIN LINE

Under the terms of an agreement entered into between Trans-Canada and the Government of Canada, dated November 21, 1955, as amended (principally as to advancement of dates) the 26th of April, 1956, it was agreed that a Crown Corporation would be established and financed by the Government to construct "The Northern Ontario Section" of the Trans-Canada main pipeline, extending 675 miles from the Ontario-Manitoba border to a point near Kapuskasing, Ontario. This "Crown Section" of the main pipeline would be engineered and designed in accordance with standards specified by Trans-Canada and would be constructed of 30" diameter, 3/8" wall thickness line pipe, initially equipped with sufficient compressor horsepower for a through-put of 300,000 Mcf per day and designed for an ultimate through-put, after the installation of additional compressor capacity, of 530,000 Mcf per day. The estimated cost of the line as initially equipped, referred to in the agreement, is $117,633,000. The Crown Corporation would install and bear the cost of installing such additional compressor capacity as may be required for the operation of the Trans-Canada project from time to time, but there is no obligation for the Crown Corporation to install any additional pipeline or looping. Pursuant to this agreement such Crown Corporation was formed on June 5, 1956 under the name "Northern Ontario Pipe Line Crown Corporation".

This agreement further provides for the Crown Corporation to lease the Crown section to Trans-Canada for a period of 25 years from the completion of construction. Trans-Canada, as lessee, will:

1. Operate and maintain the section at its own cost.

2. Pay local and municipal taxes and assessments.

3. Pay a monthly rental equal to the Mcf transmitted in the preceding month times a figure for "transportation cost per Mcf." Such transportation cost is defined as the amount (in cents per Mcf) which, if the line were operated for one year at two-thirds of initially designed capacity would yield to the Crown Corporation an amount in that year equal to 4-1/2% of the capital cost of the section as constructed at its initially designed capacity. On the basis of the estimated cost of construction of the section and the assumed initial capacity of 300,000 Mcf per day set forth in the agreement, the resulting transportation cost figure would be 7.2¢ per Mcf.

4. Commencing in the fourth full calendar year of the lease, Trans-Canada agrees to pay an additional rental in the amount by which Trans-Canada's revenues exceed the sum of operating expenses, debt interest, and 3-1/2% depreciation. However, the amount of additional rental in any one year is not to be in excess of 1% of the capital cost of the Crown section as constructed. On the basis of the estimated cost of construction used in the Crown agreement, the ceiling on such additional rental would be $1,176,330. Furthermore, such additional rental is payable only to the extent necessary to bring the regular rental set forth in Paragraph 3 above, accumulated from the commencement of payment of rentals to the date in

question to a total of 7% per annum of the total capital cost of the section, plus interest at 3-1/2% compounded annually on any net deficiencies in previous rentals paid below such 7% per annum for any preceding period.

5. Make repairs and replacements.
6. Be responsible for loss or damage and maintain proper insurance.
7. Save the Crown Corporation harmless from public liability and property damage liability.

Detailed computations of the transportation cost rental and of additional rental are set forth in Exhibit 7, Schedule 5 and Exhibit 8, Schedule 5 of the Appendix to this report.

Trans-Canada agrees to purchase the Crown section "as soon as it can arrange the necessary finances" and may elect to purchase the section by three months written notice. The agreement provides that Trans-Canada shall not be entitled to elect to purchase:

1. Before the Crown Corporation has received an accumulative 3-1/2% return on its investment, or
2. At a price less than:
    a. The amortized capital cost of the section. (It is provided that the total capital cost shall be amortized by application of all rental payments received in excess of an accumulative 3-1/2% return on the Crown Corporation's "invested capital and outstanding capital obligations" semi-annually toward the

retirement of such capital cost), or

b. 70% of the initial capital cost of the section, whichever is higher.

Detailed computations applying these criteria for establishing the purchase price are set forth in Exhibit 7, Schedule 5, and Exhibit 8, Schedule 5 of the Appendix to this report.

It is noted that the original agreement with the Government of Canada contemplated construction of the entire Crown section in one construction year. However, the language of the agreement indicates that the parties contemplated that the construction of the Crown section and of the balance of the Trans-Canada project would be coordinated so that they would be ready for operation at approximately the same time. Furthermore, the agreement states that "Trans-Canada and the said Crown Corporation shall co-operate in every respect to the end that (a) the said all-Canadian pipeline shall be completed as one integrated project on the most economical basis from the point of view both of costs of construction and operation * * * *". The presently contemplated program of construction of Trans-Canada would make it more economical and would better coordinate with Trans-Canada's over-all program if the initial portion of the Crown section, extending from the Ontario-Manitoba border to a point near Port Arthur, Ontario, were constructed during the 1957 construction season, with the balance of the section from Port Arthur to Kapuskasing, Ontario, together with the installation of one compressor station contemplated initially for the Crown section, to be constructed in the 1958 construction season. Following discussions of the matter with counsel for Trans-

Canada, it is believed that such modification in the program, considering the initial portion of the Crown section as going into service at the end of the 1957 construction season with the entire Crown section going into service at the end of the 1958 construction season, can be effectuated by an agreement between the Crown Corporation and Trans-Canada, within the general term of the over-all agreement of November 21, 1955, as amended, between the Government of Canada and Trans-Canada.

Purchase price computations as to Plan 1 are shown in Exhibit 7, Schedule 5, of the Appendix to this report and for Plan 2 in Exhibit 8, Schedule 5, of the Appendix to this report. It is noted that under either Plan 1 or Plan 2 all rental payments as computed from the period of initial operation through October 31, 1962, and substantially all the payments during the 1962/63 operating year, as set forth in the tabulation, may be applied with full credit toward a reduction in the ultimate purchase price of the Crown section by Trans-Canada when financing for such purchase can be arranged. It is also noted that the proposed mortgage indenture in connection with the First Mortgage Bonds is expected to provide that the ratio of bonds to cost of plant constructed or acquired may temporarily increase from 60% to 70%, if certain earning tests are met, at the time Trans-Canada purchases the Crown section. As to property additions subsequent to the purchase of the Crown section, the ratio of bondability to property additions will return to 60%.

Although many factors influence the desirable date for Trans-Canada's purchase of the Crown section, no penalty as to the purchase price of the section will result to Trans-Canada if the Crown section is not purchased until about October 31, 1963.

XI. PLAN OF FINANCING

XI. PLAN OF FINANCING

A. ORIGINAL FINANCING

At June 7, 1956, the date at which the construction program of Trans-Canada commenced, the Company was financed entirely through the prior issuance of 1,928,183 shares of common stock to its various sponsoring shareholders, resulting in a total capitalization as at that date of $15,411,455.88, of which $1,928,183 was booked by the Company as common stock at $1 par value and $13,483,272.88 as premium on the sale of such stock. Of the amounts paid in to the Company for capitalization as of June 7, 1956, $8,309,670.01 had been expended for such items as preliminary studies, surveys, applications to governmental authorities, preparation of exhibits, and the like, believed to be in the nature of expenditures that can properly be assigned to the cost of construction of the project and thus become a portion of depreciable plant. $155,892.88 represents investments in or advances to three subsidiary companies, Western Pipe Lines, Alberta Inter-Field Gas Lines Limited and Trans-Canada Grid of Alberta Limited. Of the remaining capital, approximately $6,700,000 was in cash or was invested in government securities readily convertible to cash. On or shortly after June 7, 1956, approximately $5,200,000 of the cash and temporary investments was expended to purchase 34" pipe than on the ground in Saskatchewan.

B. LOAN ARRANGEMENT WITH CROWN CORPORATION

At June 5, 1956, the Dominion government authorized the formation of the Northern Ontario Pipe Line Crown Corporation with authority

to provide interim financing for the construction by Trans-Canada of the initial section of the pipeline from the Alberta-Saskatchewan border to a point south of and approximately 12 miles east of Winnipeg, Manitoba. This is the same Crown Corporation which is authorized to build the Northern Ontario section of pipeline from the Manitoba border to Kapuskasing, Ontario. The government also appropriated funds to the Crown Corporation to provide the proposed interim financing in the form of a loan to Trans-Canada of up to $80 million for such construction purposes. Pursuant to the loan agreement, dated May 8, 1956, between the Government of Canada and Trans-Canada, copy of which is attached as Exhibit 11 in the Appendix to this report, Trans-Canada must first expend $7,500,000 of its own funds ($2,369,589 out of the $8,309,670 expended prior to June 7, 1956, and allocated to the western section of the Trans-Canada project is credited against this figure and this allocated amount, together with the investment in pipe for the western section in the amount of approximately $5,200,000 satisfies the $7,500,000 condition), representing 10% of the estimated cost of the western section. The Crown Corporation will then advance, as needed, the next $67,500,000 required for construction. If amounts in excess of a total of $75 million are required for construction of the western section, the Crown Corporation will then advance 90% of the balance to Trans-Canada until the total of loans by the Crown Corporation, pursuant to the agreement, equals $80,000,000. Any additional funds required to complete construction of the western section are to be provided by Trans-Canada.

The loans made by the Crown Corporation are to be evidenced by bonds issued pursuant to an indenture and are "secured by a first mortgage, pledge or charge, or a floating charge on all assets, rights and under-takings, both present and future acquired, of Trans-Canada." These bonds bear an interest rate of 5% per annum from the date of issue until repay-ment. In its agreement Trans-Canada undertakes to pay back the loan from the Crown Corporation in its entirety on or before April 2, 1957, together with interest in full and certain costs and expenses incurred in connec-tion with the loan. The terms of the agreement provide that Trans-Canada shall be in default, subject to any delays caused by conditions of force majuere, if it fails:

(1) To repay the loan on or before April 2, 1957,

(2) To carry out with due diligence the construction of the western section,

(3) To complete the western section on or before December 31, 1956, and

(4) To carry out any other obligations specified in the agreement.

In the event of default, the Crown Corporation shall have the power to take immediate possession of the project as it then exists.

It is also noted that the Government of Canada, Trans-Canada, the individual stockholders of Trans-Canada, certain holders of options to purchase shares of Trans-Canada, and the Deputy Minister of Finance of Canada, have entered into a five-party escrow agreement, under which the shares of Trans-Canada are held by the Deputy Minister of Finance of Canada, as Trustee, for transfer to the Government of Canada should

Trans-Canada default in its obligation with the Crown Corporation relating to the $80 million loan.

As the financing program is now planned by Trans-Canada, it is probable that only approximately $50 million will be taken down from the Crown Corporation during 1956, and it is proposed that, subject to completion of the initial step of Trans-Canada's public financing program prior to that date, Trans-Canada will discharge its loan to the Crown Corporation on or about December 1, 1956.

C. PROPOSED PLAN FOR PUBLIC FINANCING

In addition to the $15,411,455.88 of common capital financing already consummated, Trans-Canada proposes, between the early fall of 1956 and the commencement of full operation of the pipeline estimated to occur at November 1, 1958, to issue $30,000,000 of Common Stock, $60,000,000 of Subordinated Debentures, and $144,000,000 of First Mortgage Bonds, bringing the total capitalization of the company at November 1, 1958 to approximately $250,000,000.

The 1956 phase of the financing program as proposed, will consist of the sale to the public of 600,000 units made up of one $100 5-1/2% Subordinated Debenture, issued in conjunction with five shares of Common Stock at $10 per share.

It is proposed that the 5-1/2% Subordinated Debentures, to be issued as of November 1, 1956, would mature after 30 years at November 1, 1986. Retirements would commence in the 13th year, or after

November 1, 1968, at the rate of $2,500,000 per year, or one-half of the Sinking Fund net income, as defined, whichever is less.

As to the First Mortgage Bonds, for which the company's financial advisers have assumed an annual interest rate of 4-3/4%, it has been assumed that a stand-by fee of 1% with respect to the bonds committed but not taken down would commence as of November 1, 1956. The bond issue would mature at October 1, 1978. Retirements would commence on October 1, 1961 with the calling of $3,180,000 of bonds at par, with like amount semi-annually thereafter.

The assumed dates for the taking-down of bond money and the amounts estimated to be taken down at those dates are as follows:

May 1, 1957	$ 20,000,000
Aug. 1, 1957	25,000,000
May 1, 1958	35,000,000
Aug. 1, 1958	64,000,000
Total	$144,000,000

The cost of financing, associated with the Common Stock, Subordinated Debentures and First Mortgage Bonds, is estimated by the company's financial advisers at $5 million. In addition to this, the stand-by fee, based on the bond take-down schedule outlined above, is estimated as follows:

Period to Which Stand-by Fee Applies	Stand-by Fee
November 1, 1956 - April 30, 1957	$ 720,000
May 1, 1957 - July 31, 1957	310,000
August 1, 1957 - April 30, 1958	742,500
May 1, 1958 - July 31, 1958	160,000
	$1,932,500

The stand-by fee is to be paid at each date on which bonds are sold.

In addition to the proposed plan of public financing outlined above, the company contemplates, as additional protection to the purchasers of its First Mortgage Bonds and Subordinated Debentures, that each of its present stockholders will severally agree to purchase his proportion of a maximum total of $21,000,000 of 5-1/2% Subordinated Income Notes to the extent that interest is not earned and paid on both the First Mortgage Bonds and the publicly held Subordinated Debentures in any of the first five years of full operation (assumed to commence at November 1, 1958). The Subordinated Income Notes would be convertible into common stock after the five-year period at a price of $15 per share. Their maturity would be subsequent to other long-term debt. The company would certify earnings from operations, after provision for depreciation, and pay such earnings in to the Trustee for the period ending two months before each interest date and the stockholders would pay in the deficiency if any, to the Trustee, severally, up to the total individual commitment, completing interest on the First Mortgage Bonds for any period first, before the Subordinated Debentures.

In consideration of the agreement of the stockholders to purchase Subordinated Income Notes if called upon to do so, as set forth above, each

stockholder shall have the right until November 1, 1963, at his own option, to purchase an amount of such Notes, if any, which will bring his holdings at that date up to one third of his commitment, or a total of up to $7,000,000 of such notes for the stockholders as a group.

D. SUBSEQUENT FINANCING REQUIREMENTS

The proposed plan of public financing for Trans-Canada, outlined in Section C above, will carry the company's construction program through the year 1958, at which time the entire line will be in operation. Included in the requirements to be covered by this financing is the $5,400,000 required for purchase of the facilities of Niagara Gas Transmission Limited just prior to November 1, 1958. Moreover, cash generated internally, together with such Subordinated Income Notes as it is estimated will be issued, is expected to meet the company's needs for its operations, including interest on the Subordinated Income Notes, through October 31, 1963 and for its proposed construction plans for 1959, 1960, 1961, 1962 and 1963, under either Plan 1 or Plan 2. In these years the construction consists of the addition of compressor stations to increase the capacity of the line as the loads served by the company increase.

It should be noted that no provision is made herein for purchase of the Northern Ontario Pipe Line Crown Corporation section of line from the Manitoba-Ontario border to Kapuskasing, nor is any provision made for financing of the lateral line from near Winnipeg, Manitoba, to Emerson, Manitoba, in the event that the sale of gas to Midwestern Gas Transmission Company across the international border at a point near Emerson is authorized

by the Federal Power Commission. Either of these eventualities would require additional financing, although it is believed that sufficient common equity may have been provided by the initial financing, together with earnings retained in the business over the early years, to make possible the financing of the purchase of the Crown Corporation section of line solely through the issuance of additional mortgage bonds.

XII. FINANCIAL STATEMENTS

XII. FINANCIAL STATEMENTS

A. INCOME ACCOUNT PROJECTIONS

Included in this report as Exhibit 7, Schedule 6, in the Appendix, is income account projection for Trans-Canada based on assumed development of the facilities in accordance with Plan 1. From this projection, the following figures are developed as to earnings per share of common stock outstanding at the end of each operating year and as to "return on investment" as the latter is referred to in the price adjustment provisions of Trans-Canada's gas purchase contracts, which have been interpreted to indicate a rate base computed as original cost of plant used and useful in the company's business, plus a reasonable allowance for working capital and inventory, less accrued depreciation. Working capital has been taken at one-eighth of annual expenses exclusive of cost of gas purchased, depreciation and taxes. Inventory, or materials and supplies, has been taken as 1% of gross plant.

Year	Earnings Per Share of Common Stock	Per Cent Return On Investment
1957-58	$	-
1958-59	-	1.21
1959-60	-	3.26
1960-61	-	4.17
1961-62	.13	4.67
1962-63	.49	5.56

Similar information is also developed with regard to Plan 2 from the data in Exhibit 8, Schedule 6, in the Appendix, as follows:

Year	Earnings Per Share Of Common Stock	Per Cent Return On Investment
1957-58	$	-
1958-59	-	1.57
1959-60	-	3.78
1960-61	-	4.80
1961-62	.34	5.06
1962-63	.90	6.41

B. CASH FLOW PROJECTION

Based on the needs for construction, payment of actual standby and interest charges during the construction period, as obtained from the company's financial consultants, the proposed plan of financing and the company's income from operations, a statement of cash available and required is set forth in Exhibit 7, Schedule 7, in the Appendix for Plan 1 and Exhibit 8, Schedule 7 in the Appendix for Plan 2.

C. BALANCE SHEET PROJECTION

Balance sheets as at June 7, 1956, the date on which construction of the Trans-Canada project was commenced, and on successive October 31st thereafter, to and including October 31, 1963, are shown as to Plan 1 in Exhibit 7, Schedule 8, in the Appendix, and as to Plan 2 in Exhibit 8, Schedule 8 in the Appendix.

The company's capitalization ratios, developed from the balance sheet projections, as at October 31 of each year studied, commencing with

the date of initial full operation of the Trans-Canada pipeline, are as follows under Plan 1:

	1958	1959	1960	1961	1962	1963
Mortgage Bonds	57.26	57.19	57.09	56.61	55.32	53.57
Subordinated Debentures	23.86	23.83	23.79	24.12	24.69	25.09
Total Debt	81.12	81.02	80.88	80.73	80.01	78.66
Common Equity	18.88	18.98	19.12	19.27	19.99	21.34

Such ratios are as follows under Plan 2:

	1958	1959	1960	1961	1962	1963
Mortgage Bonds	57.37	57.28	57.14	56.43	54.92	52.73
Subordinated Debentures	23.91	23.86	23.81	24.04	24.50	24.70
Total Debt	81.28	81.14	80.95	80.47	79.42	77.43
Common Equity	18.72	18.86	19.05	19.53	20.58	22.57

D. INTEREST AND DEBT SERVICE COVERAGE

As developed in Exhibit 7, Schedule 9, in the Appendix, for Plan 1, and in Exhibit 8, Schedule 9, in the Appendix for Plan 2, the following are the computed coverage factors of earnings before Dominion income taxes related to (1) bond interest requirements and (2) total interest requirements, exclusive of interest on Subordinated Income Notes:

Year	Times Bond Interest Covered		Times Total Interest Covered (Exclusive Of Income Notes)	
	Plan 1	Plan 2	Plan 1	Plan 2
1958-59	.419	.541	.283	.365
1959-60	1.157	1.330	.780	.897
1960-61	1.458	1.669	.984	1.126
1961-62	1.689	1.820	1.127	1.214
1962-63	2.029	2.324	1.332	1.526

The coverage before depreciation of total debt service requirements, including interest on both the mortgage debt and the subordinate debentures, but exclusive of the subordinated income notes, together with retirement provisions associated with the mortgage debt, for Plan 1 and Plan 2, are as follows:

Year	Times Debt Service Requirements (Exclusive Of Income Notes)	
	Plan 1	Plan 2
1958-59	1.105	1.186
1959-60	1.631	1.747
1960-61	1.422	1.529
1961-62	1.253	1.305
1962-63	1.388	1.504

In Exhibit 7, Schedule 9, in the Appendix, as to Plan 1, and Exhibit 8, Schedule 9, in the Appendix, as to Plan 2, ratios are developed for mortgage debt outstanding expressed as a percentage of gross property and of net property account and also of total long-term debt

outstanding exclusive of subordinated income notes, to gross property account and net property account at each of the balance sheet dates, commencing with October 31, 1958.

XIII. EFFECT OF PROPOSED SALE TO MIDWESTERN GAS TRANSMISSION COMPANY NEAR EMERSON, MANITOBA

XIII. EFFECT OF PROPOSED SALE TO MIDWESTERN GAS TRANSMISSION COMPANY NEAR EMERSON, MANITOBA

In hearing before the Federal Power Commission is an application of Midwestern Gas Transmission Company, Docket No. G-9448 et al., for authorization of Midwestern to purchase approximately 200,000 Mcf of gas per day from Trans-Canada at the international border near Emerson, Manitoba. The hearing is contested and neither its outcome nor the expected time of any decision from the Federal Power Commission can be predicted at this time. Therefore, the proposed sale to Midwestern has been omitted from both Plan 1 and Plan 2 as studied in this report.

The effect of the addition of this load at Emerson, Manitoba, has been studied with the following results:

As to the 34" diameter section of the Trans-Canada main line from the Alberta-Saskatchewan border to the end of the section near Winnipeg, Manitoba, it would be necessary to add four 2,500 h.p. reciprocating compressor units at Station 1 and to establish four additional compressor stations, as follows:

Station 3 - Two 7,600 h.p. centrifugal units

Station 5 - Six 2,500 h.p. reciprocating units

Station 7 - Six 2,500 h.p. reciprocating units

Station 9 - Two 7,600 h.p. centrifugal units

This addition of 70,400 h.p. in one existing and four new compressor stations is estimated to cost $28,816,400, exclusive of interest during construction.

In addition, it would be necessary to construct a lateral line from a point south and approximately 12 miles east of Winnipeg, Manitoba, at the end of the 34" diameter section of the Trans-Canada main line to the point of delivery on the international border, near Emerson, Manitoba, a distance of 48 miles, to be constructed of 24" diameter pipe at a cost of $3,846,448, exclusive of interest during construction.

If the sale to Midwestern at Emerson, Manitoba, is made at 100% annual load factor, resulting in an annual sales volume of 74,825 MMcf of gas, the revenue to Trans-Canada, reflecting a maximum daily requirement of 205,000 Mcf on a 14.73 psia, 60°F. pressure base, at the proposed rate to Midwestern of $2 demand charge per Mcf of Demand Contract Quantity per month, and 18.5¢ per Mcf commodity charge, would be $18,762,625. After deducting estimated incremental operating expenses associated with the sale and assuming the sale to be made throughout the year 1962-63, the estimated amount available for return on the incremental investment is approximately $2,100,000, which equates to 6-1/2% on the estimated added rate base of approximately $32,500,000.

On the above basis, it would appear that the sale to Midwestern at Emerson would be profitable and would be most beneficial to the project if it could be made during the early years. However, should the sale to Midwestern not be authorized by the Federal Power Commission, the long-range effect on the Trans-Canada project would not be material, since the return on the additional investment required if the sale is made is of the same order of magnitude as the expected return on the balance of the Trans-Canada project, after it reaches a state of full development.

XIV. POSSIBLE SALES TO TENNESSEE GAS TRANSMISSION COMPANY AT NIAGARA FALLS, NEW YORK

XIV. POSSIBLE SALES TO TENNESSEE GAS TRANSMISSION COMPANY AT NIAGARA FALLS, NEW YORK

Consideration was given by Trans-Canada during the development of the present proposed plan of construction to the possibility of temporary summer sales of natural gas to Tennessee Gas Transmission Company at the international border near Niagara Falls, New York, for storage purposes. However, the substantial volumes of off peak and interruptible sales, together with the substantial sales to Union Gas Company of Canada, Limited, under a contract which permits Trans-Canada to deliver the bulk of the volumes to Union during the summer period and which also permits Trans-Canada to reduce to zero its deliveries on any day in the winter to Union results in an extremely high annual load factor for the Trans-Canada line as now proposed. There is thus no "summer valley" available from which temporary summer sales could be made to Tennessee. For Trans-Canada to make any sales to Tennessee, it would be necessary for Trans-Canada to install compressor capacity for Tennessee's account earlier than would otherwise be needed. Under such circumstances, Trans-Canada could deliver to Tennessee Gas Transmission Company at 100% annual load factor as readily as it could deliver summer gas.

Should Tennessee, at a later date, be interested in taking high load factor deliveries from Trans-Canada at the international border, a proper rate for such sales could readily be developed by Trans-Canada based on the cost of delivering such gas at the international border, and if such selling price should prove attractive to Tennessee the

necessary installation of compressor capacity or loop line, if required, could be made to permit such delivery.

It is concluded, however, that for the present, the question of Trans-Canada making sales to Tennessee at the international border should not be contemplated.

XV. CANADIAN REGULATORY SITUATION

XV. CANADIAN REGULATORY SITUATION

Trans-Canada Pipe Lines Limited was incorporated by act of the Parliament of Canada assented to by the Governor General on March 21, 1951, and May 27, 1954. The Alberta Gas Trunk Line Company Limited was incorporated by an act of the Legislative Assembly of the Province of Alberta assented to April 8, 1954 and amended April 6, 1955.

The Board of Transport Commissioners for Canada by Order No. 84220, dated July 24, 1954, authorized construction of Trans-Canada's pipeline system as then projected. By successive subsequent orders, including particularly Order No. 86796, dated August 18, 1955, Order No. 88462, dated March 28, 1956, and Order No. 88874, dated May 25, 1956, the original Order No. 84220 was modified as to description of the project and to extend the dates within which it is required that financing and licensing be arranged and construction completed. In its present form Order No. 84220, as amended, describes the Trans-Canada project substantially as now contemplated except that it includes the Emerson, Manitoba, lateral. The date presently fixed within which financing and licensing must be arranged is November 1, 1956, and the date within which construction must be completed is December 31, 1957. Construction of certain sections of the line, namely from Sheridan, Ontario, to Ste. Anne de Bellevue, Quebec, from Morrisburg, Ontario, to Ottawa, Ontario, and from the Alberta-Saskatchewan border to Winnipeg, Manitoba, are excepted from the financing and licensing requirements of said order. Copies of said orders are attached as Exhibit 12 in the Appendix to this report.

Construction of the Trunk Line pipeline system in Alberta has been authorized by Permit No. 1, dated December 29, 1955, issued by the Minister of Highways of the Province of Alberta under authority of the Pipe Line Act 1952, being Chapter 67 of the Statutes of Alberta, 1952, as such permit was amended March 23, 1956.

With respect to export of gas from Alberta as contemplated by Trans-Canada, The Gas Resources Preservation Act, being Chapter 2 of the Statutes of Alberta, 1949, (Second Session) requires a permit from The Petroleum and Natural Gas Conservation Board. Such a permit was issued May 14, 1954, and has since been amended, all as discussed in Section IV, subsection B, of this report.

Neither the Dominion Government nor any of the Provincial Governments of Canada exercise any regulatory authority over a pipeline corporation such as Trans-Canada with respect to rates charged its customers, the amount of its earnings, or its accounting procedures.

Likewise the Province of Alberta exercises no such regulatory authority over a corporation such as Trunk Line, the operations of which are entirely within Alberta.

With respect to provincial registration, exhibits in the record in Docket No. G-9448 et al., indicates as follows:

1. In Alberta, Trans-Canada registered under Part VIII of The Companies Act of the Province of Alberta on September 21, 1954.

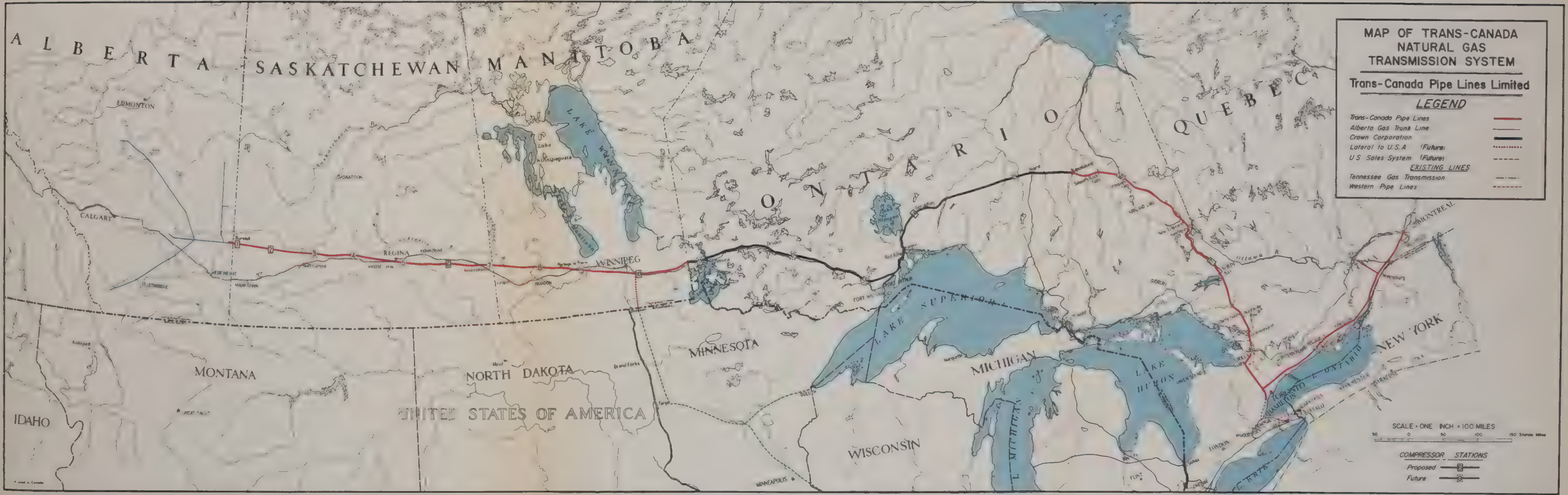
2. In Saskatchewan, Trans-Canada registerd under The Companies Act on September 23, 1954, and renewed such registration for the year 1955 on December 16, 1954.

3. In Manitoba, Trans-Canada registered under Subdivision I of Division I of Part XVIII of the Companies Act on November 5, 1954.

4. As to Quebec, Trans-Canada has received from the Department of the Attorney General a letter dated November 18, 1955, stating that such a corporation is not subject to the Extra-Provincial Companies Act (R.S.Q. 1941, Chapter 279) and does not need a license to carry on business in Quebec, but is required to comply with laws of the Province of Quebec such as the Companies Information Act under which a return has already been filed.

5. As to Ontario, Trans-Canada has received a letter dated November 22, 1955, stating that such a corporation is not required to register or obtain a license under The Extra Provincial Corporations Act 1953 (Ontario) to carry on business in Ontario and, further, advising that Trans-Canada has filed returns to date as required under The Corporations Information Act, 1953, or a predecessor of that Act.

APPENDIX


MAP OF TRANS-CANADA NATURAL GAS TRANSMISSION SYSTEM
Trans-Canada Pipe Lines Limited
LEGEND
Trans-Canada Pipe Lines
Alberta Gas Trunk Line
Crown Corporation
Lateral to U.S.A (Future)
U S Sales System (Future)
EXISTING LINES
Tennessee Gas Transmission
Western Pipe Lines
SCALE - ONE INCH = 100 MILES
COMPRESSOR STATIONS
Proposed
Future
ALBERTA
SASKATCHEWAN
MANITOBA
ONTARIO
QUEBEC
EDMONTON
CALGARY
REGINA
MOOSE JAW
WINNIPEG
LAKE WINNIPEG
FORT WILLIAM
PORT ARTHUR
MONTREAL
TORONTO
HAMILTON
BUFFALO
LAKE SUPERIOR
LAKE HURON
LAKE MICHIGAN
L. ONTARIO
L. ERIE
MONTANA
IDAHO
NORTH DAKOTA
MINNESOTA
WISCONSIN
MICHIGAN
NEW YORK
UNITED STATES OF AMERICA
DULUTH
MINNEAPOLIS

TRANS-CANADA PIPE LINES LIMITED
Proposed Schedule of Construction, By Years
Plan 1 and Plan 2

PLAN 1 (construction years 1956-1958, inclusive)

1956 - Construct approximately 200 miles of the 34" diameter Western Section of line, extending east from the Saskatchewan Gate in Alberta near the Alberta-Saskatchewan border.

1957 -

1. Complete the remaining approximately 386 miles of the 34" diameter Western Section of line from the Alberta-Saskatchewan border to a point south and approximately 12 miles east of Winnipeg, Manitoba.

2. Construct the 85 mile 30" diameter section of line from near Winnipeg, Manitoba, eastward to the Manitoba-Ontario border.

3. Install the following compressor units in the following compressor stations, to be constructed:

   Station 2 - 1 - 7600 H.P. centrifugal unit

   Station 10 - 2 - 2500 H.P. reciprocating units.

4. Northern Ontario Pipe Line Crown Corporation to construct the 310 mile portion of the 30" diameter Crown Corporation section of line from the Manitoba-Ontario border to a point north of Port Arthur, Ontario.

1958 -

1. Construct the 491 mile 30" diameter section of line from Kapuskasing, Ontario, to Toronto Junction, Ontario.

2. Construct the 25 mile 24" diameter section of line from Toronto Junction southwest to Sheridan, Ontario.

3. Construct the 310 mile 20" diameter section of line from Toronto Junction northeast to Montreal, Quebec.

4. Construct the 40 mile 12-3/4" diameter Ottawa lateral line.

5. Install the following compressor units in the following additional compressor stations, to be constructed:

   Station 1 - 1 - 2500 H.P. reciprocating unit

   Station 6 - 1 - 7600 H.P. centrifugal unit

   Station 17 - 2 - 2500 H.P. reciprocating units.

6. Acquire the facilities of Niagara Gas Transmission Limited extending from Sheridan, Ontario, to a point on the international border near Niagara Falls, New York.

7. The Crown Corporation to complete the construction of the remaining 365 miles of the 30" Crown Corporation section from near Port Arthur, Ontario, to Kapuskasing, Ontario.

8. The Crown Corporation install 2 reciprocating compressor units of 2500 H.P. each in Compressor Station 14, to be constructed by the Corporation.

PLAN 2 (construction years 1956-1958, inclusive)

1956 - Construct approximately 200 miles of the 34" diameter Western Section of line extending east from the Saskatchewan Gate, in Alberta near the Alberta-Saskatchewan border.

1957 -

1. Complete the remaining approximately 386 miles of the 34" diameter section of line from the Alberta-Saskatchewan border to a point south and approximately 12 miles east of Winnipeg, Manitoba.

2. Construct the 85 mile 30" diameter section of line from near Winnipeg, Manitoba, eastward to the Manitoba-Ontario border.

3. Construct the 25 mile 24" diameter section of line from Toronto Junction, Ontario, southwest to Sheridan, Ontario.

4. Construct the 310 mile 20" diameter section of line from Toronto Junction northeast to Montreal, Quebec.

5. Install the following compressor units in the following compressor stations, to be constructed:

   Station 2 - 1 - 7600 H.P. centrifugal unit

   Station 10 - 1 - 2500 H.P. reciprocating unit.

6. Northern Ontario Pipe Line Crown Corporation to construct the 310 mile portion of the 30" diameter Crown Corporation section

of line from the Manitoba-Ontario border to a point north of Port Arthur, Ontario.

1958 -

1. Construct the 491 mile 30" diameter section of line from Kapuskasing, Ontario, to Toronto Junction, Ontario.

2. Construct the 40 mile 12-3/4" diameter Ottawa lateral line.

3. Install the following compressor units in the following additional compressor stations to be constructed:

   Station 1 - 1 - 2500 H.P. reciprocating unit
   Station 6 - 1 - 7600 H.P. centrifugal unit
   Station 17 - 2 - 2500 H.P. reciprocating units.

4. Acquire the facilities of Niagara Gas Transmission Limited extending from Sheridan, Ontario, to a point on the international border near Niagara Falls, New York.

5. The Crown Corporation to complete the construction of the remaining 365 miles of the 30" diameter Crown Corporation section from near Port Arthur, Ontario, to Kapuskasing, Ontario.

6. The Crown Corporation install 2 reciprocating compressor units of 2500 H.P. each in Compressor Station 14 to be constructed by the Corporation.

PLAN 1 and PLAN 2 (construction years 1959-1962, inclusive)

1959 -

1. Install the following compressor units in the following additional compressor station, to be constructed:

   Station 16 - 2 - 2500 H.P. reciprocating units.

2. Install the following additional compressor unit in the following existing compressor station:

   Station 10 - 1 - 2500 H.P. reciprocating unit.

3. The Crown Corporation install 2 reciprocating compressor units of 2500 H.P. each in Compressor Station 12, to be constructed by the Corporation.

1960 -

1. Install the following compressor units in the following additional compressor stations, to be constructed:

   Station 4 - 1 - 7600 H.P. centrifugal unit

   Station 8 - 1 - 7600 H.P. centrifugal unit

   Station 19 - 2 - 2000 H.P. reciprocating units.

2. Install the following additional compressor units in the following existing compressor stations:

   Station 1 - 1 - 2500 H.P. reciprocating unit

   Station 2 - 1 - 7600 H.P. centrifugal unit

   Station 16 - 1 - 2500 H.P. centrifugal unit.

3. The Crown Corporation install 3 reciprocating compressor units of 2500 H.P. each in Compressor Station 13, and 2 - 2500 H.P. reciprocating units in Station 15, both new stations to be constructed by the Corporation.

4. The Crown Corporation install 1 additional 2500 H.P. reciprocating unit in Station 12.

1961 -

1. Install 2 - 2500 H.P. reciprocating units in Station 18, to be constructed.

2. Install the following additional compressor units in the following existing compressor stations:

   Station 6 - 1 - 7600 H.P. centrifugal unit

   Station 10 - 1 - 2500 H.P. reciprocating unit

   Station 17 - 1 - 2500 H.P. reciprocating unit.

3. The Crown Corporation install 3 reciprocating compressor units of 2500 H.P. each in Compressor Station 11, to be constructed by the Corporation.

4. The Crown Corporation install 1 additional 2500 H.P. reciprocating unit in Station 14 and 1 additional 2500 H.P. reciprocating unit in Station 15.

1962 -

1. Install the following additional compressor units in the following existing compressor stations:

    Station 1 - 1 - 2500 H.P. reciprocating unit

    Station 4 - 1 - 7600 H.P. centrifugal unit

    Station 8 - 1 - 7600 H.P. centrifugal unit

    Station 16 - 1 - 2500 H.P. reciprocating unit

    Station 17 - 1 - 2500 H.P. reciprocating unit

    Station 18 - 1 - 2500 H.P. reciprocating unit.

2. The Crown Corporation install the following additional compressor units in the following existing Crown Corporation compressor stations:

    Station 11 - 1 - 2500 H.P. reciprocating unit

    Station 12 - 1 - 2500 H.P. reciprocating unit

    Station 13 - 1 - 2500 H.P. reciprocating unit

    Station 14 - 1 - 2500 H.P. reciprocating unit

    Station 15 - 1 - 2500 H.P. reciprocating unit.

TRANS-CANADA PIPE LINES LIMITED
GAS PURCHASE CONTRACT DATA
MCF QUANTITIES AT 14.4 PSIA - 60°F

	Gas Field	Proposed Delivery Date	Daily Contract Quantities: 18 Months Beginning 11-1-56	Daily Contract Quantities: 1st Year Beginning 11-1-57	Daily Contract Quantities: 2nd Year Beginning 11-1-58	Daily Contract Quantities: 11-1-59 and Thereafter	Daily Maximum Quantities Mcf: 18 Months Beginning 11-1-56 (%)	Daily Maximum Quantities Mcf: 1st Year 11-1-57 (%)	Daily Maximum Quantities Mcf: 2nd Year 11-1-58 (%)	Daily Maximum Quantities Mcf: 11-1-59 and Thereafter (%)	Daily Annual Average Minimum Quantities Mcf: 18 Months Beginning 11-1-56 (%)	Daily Annual Average Minimum Quantities Mcf: 1st Year 11-1-57 (%)	Daily Annual Average Minimum Quantities Mcf: 2nd Year 11-1-58 (%)	Daily Annual Average Minimum Quantities Mcf: 3rd Year 11-1-59 (%)	Daily Annual Average Minimum Quantities Mcf: 4th Year 11-1-60 (%)	Daily Annual Average Minimum Quantities Mcf: 11-1-61 and Thereafter (%)
INTERIM GAS PURCHASE CONTRACTS																
1 - Canadian Export Gas Ltd. et al	Bindloss	11-1-56	13,500*				115 15,525				65 8,775					
2 - Bailey Selburn Oil & Gas Ltd. et al	Bindloss	11-1-56	8,000*				" 9,200				" 5,200					
Totals Interim Contracts			21,500*				24,725				13,975					
LONG-TERM GAS PURCHASE CONTRACTS																
3 - Canadian Delhi Oil Ltd.	Cessford	11-1-57		45,000	51,300	51,300		115 51,750	115 58,995	115 58,995		65 29,250	75 38,475	75 38,475	80 41,040	80 41,040
4 - Hudson's Bay Oil and Gas Company Limited	"	"		50,500	57,700	57,700		" 58,075	" 66,355	" 66,355		" 32,825	" 43,275	" 43,275	" 46,160	" 46,160
5 - Canadian Export Gas Ltd. et al	"	"		21,000	24,000	24,000		" 24,150	" 27,600	" 27,600		" 13,650	" 18,000	" 13,000	" 19,200	" 19,200
Totals Cessford Field				116,500	133,000	133,000		" 133,975	" 152,950	" 152,950		" 75,725	" 99,750	" 99,750	" 106,400	" 106,400
6 - Calvan Consolidated Oil & Gas Company Limited	Provost	"		7,046	8,052	8,052		" 8,103	" 9,260	" 9,260		" 4,580	" 6,039	" 6,039	" 6,442	" 6,442
7 - Canada Oil Lands Ltd.	"	"		47	53	53		" 54	" 61	" 61		" 31	" 40	" 40	" 42	" 42
8 - Canadian Delhi Oil Ltd.	"	"		1,853	2,117	2,117		" 2,131	" 2,435	" 2,435		" 1,204	" 1,588	" 1,588	" 1,694	" 1,694
9 - Canadian Gulf Oil Company	"	"		496	567	567		" 570	" 652	" 652		" 322	" 425	" 425	" 454	" 454
10 - Dome Exploration (Western Limited)	"	"		14,359	16,410	16,410		" 16,512	" 18,872	" 18,872		" 9,333	" 12,308	" 12,308	" 13,128	" 13,128
11 - Hudson's Bay Oil and Gas Company Limited	"	"		3,261	3,727	3,727		" 3,750	" 4,286	" 4,286		" 2,120	" 2,795	" 2,795	" 2,982	" 2,982
12 - Merrill Petroleums Limited	"	"		47	53	53		" 54	" 61	" 61		" 31	" 40	" 40	" 42	" 42
13 - Pacific Petroleums Ltd.	"	"		393	449	449		" 452	" 516	" 516		" 255	" 337	" 337	" 359	" 359
14 - Provo Gas Producers Limited	"	"		33,756	38,579	38,579		" 38,819	" 44,366	" 44,366		" 21,941	" 28,934	" 28,934	" 30,863	" 30,863
Totals Provost Field				61,258	70,007	70,007		" 70,445	" 80,509	" 80,509		" 39,817	" 52,506	" 52,506	" 56,006	" 56,006
15 - The California Standard Company	Princess	"		17,500	20,000	20,000		" 20,125	" 23,000	" 23,000		" 11,375	" 15,000	" 15,000	" 16,000	" 16,000
16 - Canadian Export Gas Ltd. et al	Atlee-Buffalo	"		10,421	11,910	11,910		" 11,984	" 13,697	" 13,697		" 6,774	" 8,933	" 8,933	" 9,528	" 9,528
17 - Hudson's Bay Oil and Gas Company Limited	Oyen	"		1,500	1,750	1,750		" 1,725	" 2,013	" 2,013		" 975	" 1,313	" 1,313	" 1,400	" 1,400
18 - Sun Oil Company et al	Sibbald	"		5,250	6,000	6,000		" 6,038	" 6,900	" 6,900		" 3,413	" 4,500	" 4,500	" 4,800	" 4,800
19 - Bailey Selburn Oil & Gas Ltd. et al	Bindloss	"		6,125	7,000	7,000		" 7,044	" 8,050	" 8,050		" 3,981	" 5,250	" 5,250	" 5,600	" 5,600
20 - Canadian Export Gas Ltd. et al	Bindloss	"		11,646	13,310	13,310		" 13,393	" 15,307	" 15,307		" 7,570	" 9,983	" 9,983	" 10,648	" 10,648
Totals All Above Fields				230,200	262,977	262,977		" 264,729	" 302,426	" 302,426		" 149,630	" 197,235	" 197,235	" 210,382	210,382
21 - Canadian Gulf Oil Company	Pincher Creek	11-1-58			100,000	170,000			130 130,000	105.88 180,000			85 85,000	85 144,500#	85 144,500#	85 144,500#
22 - Home Oil Company Limited et al	Nevis	"			90,000	90,000			110 99,000	110 99,000			75 67,500	75 67,500	80 72,000	80 72,000
Totals Two Fields Above					190,000	260,000			229,000	279,000			152,500	212,000	216,500	216,500
23 - The California Standard Company	Gilby	11-1-59				5,000				110 5,500				75 3,750	75 3,750	80 4,000
24 - The California Standard Company	Homeglen-Rimbey															
	Not Unitized	"				40,000				110 44,000				75 30,000	75 30,000	80 32,000
	Additional if Unitized	"				24,000				110 26,400				75 18,000	75 18,000	80 19,200
Totals Two Fields Above						69,000				75,900				51,750	51,750	55,200
GRAND TOTALS			21,500*	230,200	452,977	591,977	24,725	264,729	531,426	657,326	13,975	149,630	349,735	460,985	478,632	482,082
ANNUAL AGGREGATE MCF QUANTITIES			7,847,500	84,023,000	165,336,605	216,071,605	9,024,625	96,626,085	193,970,490	239,923,990	5,100,875	54,614.950	127,653,275	168,259,525	174,700,680	175.959.930

* Also quantities required for packing, pigging, purging and testing.

Minimum single day 136,000 Mcf.

C O P Y

OFFICE OF THE PREMIER

ALBERTA

Edmonton, September 9th, 1955.

Mr. N. E. Tanner,
President, Trans-Canada Pipe Lines Ltd.,
326 - 9 Avenue W.
CALGARY, Alberta.

Dear Mr. Tanner:

The Government has considered the representations of your Company that it would assist in the financing of your pipeline project if assurance was given by the Government and the Petroleum and Natural Gas Conservation Board that additional reserves of gas over and above those covered by the present permit would be made available for the project as they become surplus to the requirements of the Province.

The Government, after consultation with the Board, is prepared to give this assurance provided that:

(a) Your Company contracts for the reserves covered by the permit issued May 14th, 1954, or for approved alternate reserves in the same aggregate amount.

(b) Any additional reserves applied for are covered by contract.

Yours very truly,

(sgd.) Ernest Manning

Premier.

Exhibit 5

RESERVED FOR

DE GOLYER AND MAC NAUGHTON

LETTER RE GAS RESERVES

TRANS-CANADA PIPE LINES LIMITED
P. O. Box 500
CALGARY, ALBERTA

March 26, 1956

The Alberta Gas Trunk Line
Company, Limited,
Pacific Building,
CALGARY, Alberta.

Gentlemen:

This letter will evidence our agreement relative to the proposed transportation within the Province of Alberta of natural gas by The Alberta Gas Trunk Line Company Limited (Trunk Line) for Trans-Canada Pipe Lines Limited (Trans-Canada), which gas will be purchased by Trans-Canada from producers in the various gas fields set forth in Trans-Canada's present permit from the Petroleum and Natural Gas Conservation Board of Alberta, as amended, transported by Trunk Line through its proposed pipe line system and delivered by Trunk Line to Trans-Canada at the proposed interconnection between the pipe line systems of Trunk Line and Trans-Canada at a point in the N.E. 1/4 Section 11-20-1 W.4th in the Province of Alberta.

1. Trunk Line shall construct a natural gas pipe line system in accordance with Permit No. 1 dated December 29, 1955 granted to Trunk Line by the Minister of Highways of the Province of Alberta, as amended by Amendment to Permit No. 1 dated March 23, 1956 by the said Minister, a location map of which system is attached hereto as Exhibit A, and a composite flow study diagram of the said system is attached hereto as Exhibit B.

TRANS-CANADA PIPE LINES LIMITED

The Alberta Gas Trunk Line
Company Limited

2. Trunk Line will transport gas in quantities as required by Trans-Canada from said fields, through said system, in accordance with and subject to the presently outstanding permit of Trans-Canada, which said permit allows Trans-Canada to remove from the Province of Alberta (at a pressure base of 14.4 PSIA and at a temperature of 60 degrees Fahrenheit) a maximum daily quantity of 620,000 MCF and a maximum annual quantity of 183,000,000 MCF.

3. Trans-Canada agrees to cause all gas to be removed by it from the Province of Alberta under its said permit to be transported by Trunk Line, and to pay Trunk Line for such transportation service Trunk Line's cost of providing such service, to be determined in accordance with a Cost of Service Rate, a statement of the provisions of which is attached hereto as Exhibit C. Trunk Line and Trans-Canada agree that the Development Period Reduction in Charges referred to in Paragraph 7 of said Exhibit C is intended to ensure that the charge for transportation which Trans-Canada will be required to pay during the first three years of transportation service will not exceed 4¢ per MCF. On the basis of present cost estimates and projections of operating conditions, the said Development Period Reduction in Charges set forth in said Paragraph 7 would accomplish this. However, in the event such is not the case, Trunk Line agrees that the overall charges for transportation service to Trans-Canada will not exceed in the aggregate said 4¢ per MCF providing Trans-Canada requires the transportation of at least the following quantities of gas (at the pressure and temperature base set forth in 2. above) through Trunk Line's system during such period:

TRANS-CANADA PIPE LINES LIMITED

The Alberta Gas Trunk Line
Company Limited

(1)	From date of commencement of transportation service hereunder to the 31st day of October falling nearest the completion of one year of transportation service, providing such October 31st shall not be later than October 31st, 1958	63,815,000 MCF
(2)	From the expiration of the period set out in (1) above to the 31st of October next following	140,362,000 MCF
(3)	From the expiration of the period set out in (2) above to the 31st day of October next following	163,486,000 MCF

4. The term of this gas transportation agreement shall be for a term of twenty-five (25) years from the commencement of delivery of gas hereunder or until the expiration of Trans-Canada's right to remove gas from the Province of Alberta, whichever shall first occur.

5. Trunk Line and Trans-Canada, prior to commencement of construction of their respective pipe line systems, shall conclude preparation of and execute a definitive contract setting forth in detail and in accordance with standard pipe line practices the provisions relating to such gas transportation agreement, including the foregoing provisions.

6. The obligations of each party hereunder are, and under said definitive contract will be, subject to each party making satisfactory financial arrangements not later than October 31st, 1956 to enable the construction of its respective project.

7. This letter agreement shall replace in its entirety the letter agreement between us dated February 2nd, 1956, which letter agreement is hereby cancelled.

If the foregoing correctly reflects your understanding of our agreement, please execute the extra copy of this letter in the space provided below and return same to us at your earliest convenience.

Yours very truly,

TRANS-CANADA PIPE LINES LIMITED

/s/ D. R. Pflug
Vice President
(C.S.)

/s/ J. C. Saks
Assistant Secretary

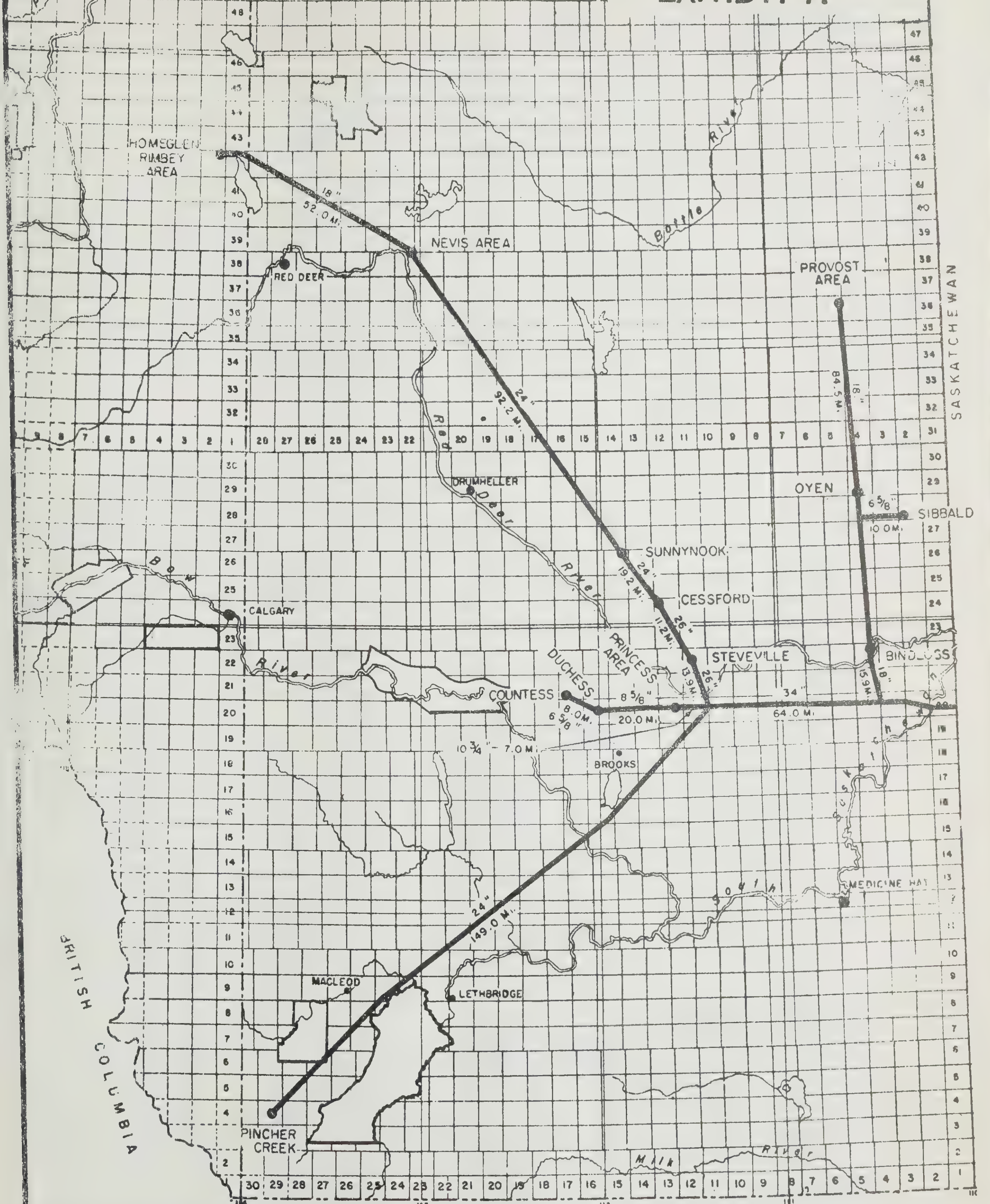
ACCEPTED AND AGREED TO
this 26th day of March, 1956:

THE ALBERTA GAS TRUNK LINE
COMPANY LIMITED

/s/ Vernon Taylor
Vice President
(C.S.)

/s/ John M. Ballachey
Assistant Secretary

EXHIBIT A



DUTTON – WILLIAMS – MANNIX Engineers CALGARY Constructors ALBERTA		ROUTE MAP THE ALBERTA GAS TRUNK LINE COMPANY LIMITED	
Drawn A. L. B.	Date NOV 2nd 1955	Checked C. H. M. B.	FIGURE I
Revised: March 15th 1956	Scale 1" = 32 Miles	Approved:	

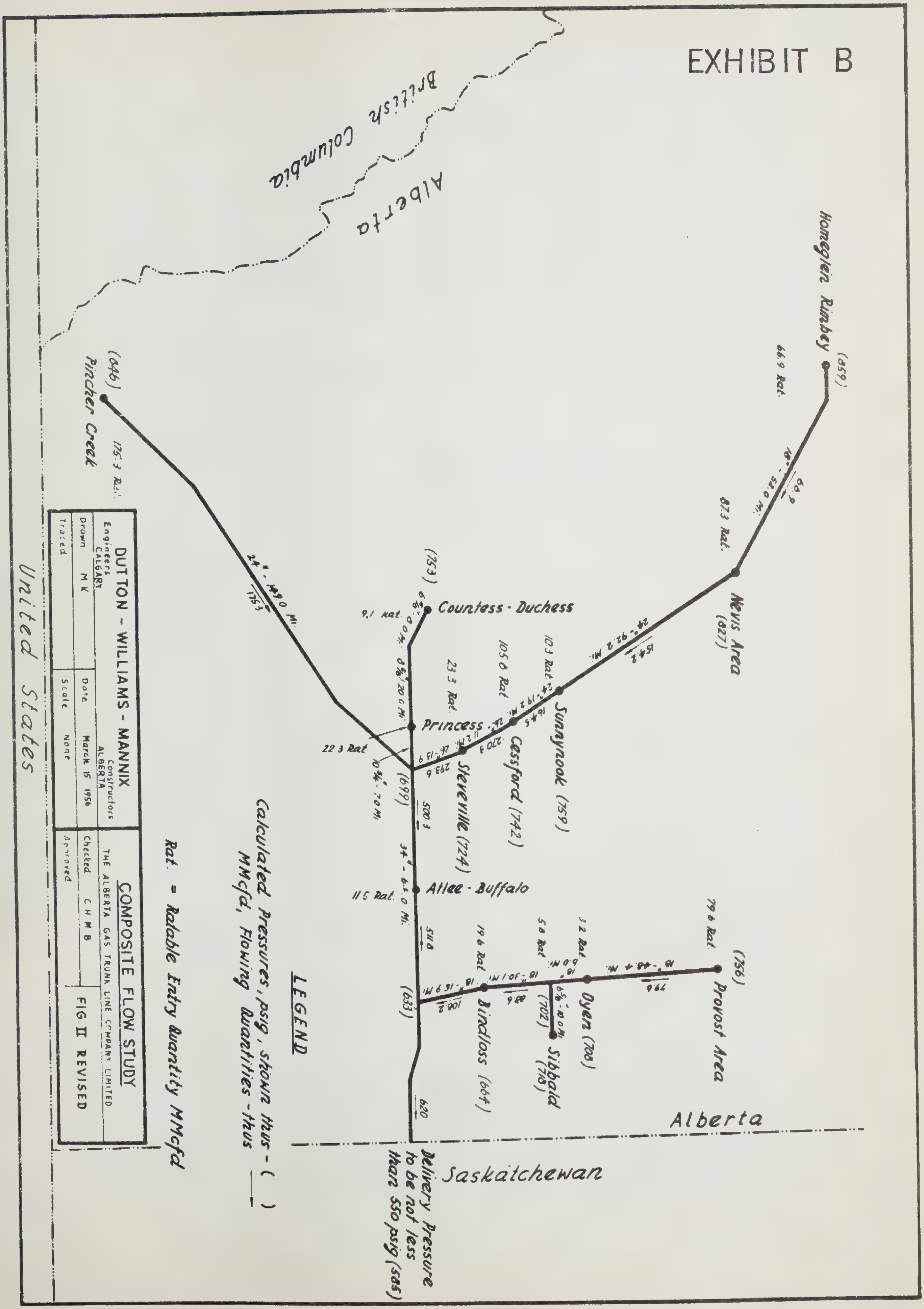


EXHIBIT B
British Columbia
Alberta
Homeglen Rimbey (859)
66.9 Rat.
18" - 52.0 Mi.
66.9
87.3 Rat.
Nevis Area (827)
24" - 92.2 Mi.
154.2
Sunnynook (759)
103 Rat.
24" - 19.2 Mi.
164.5
Cessford (742)
105.6 Rat.
270.3
Steveville (724)
23.3 Rat.
293.6
Princess
22.3 Rat
10¾" - 7.0 Mi.
Countess - Duchess (753)
9.1 Rat.
8⅝" - 20.0 Mi.
Pincher Creek (846)
175.3 Rat.
24" - 149.0 Mi.
175.3
(699)
500.3
34" - 61.0 Mi.
Atlee - Buffalo
11.5 Rat.
511.8
(633)
18" - 16.9 Mi.
108.2
Bindloss (664)
19.6 Rat.
18" - 30.1 Mi.
88.6
5.8 Rat.
18" - 0.0 Mi.
6⅝" - 10.0 Mi.
(702)
Sibbald (718)
3.2 Rat.
Oyen (708)
18" - 48.4 Mi.
79.6
79.6 Rat.
Provost Area (756)
620
Alberta
Saskatchewan
Delivery Pressure to be not less than 550 psig (585)
LEGEND
Calculated Pressures, psig, shown thus - ( )
MMcfd, Flowing Quantities - thus ___
Rat. = Ratable Entry Quantity MMcfd
United States
DUTTON - WILLIAMS - MANNIX
Engineers Constructors
CALGARY ALBERTA
Drawn M K
Traced
Date March 15 1956
Scale None
COMPOSITE FLOW STUDY
THE ALBERTA GAS TRUNK LINE COMPANY LIMITED
Checked C H M B
Approved
FIG. II REVISED

EXHIBIT C

THE ALBERTA GAS TRUNK LINE COMPANY LIMITED

STATEMENT OF COST OF SERVICE RATE

Trans-Canada Pipe Lines Ltd. shall pay to The Alberta Gas Trunk Line Company Limited (Trunk Line) for gas transported and service rendered each month, Trunk Line's cost of service in rendering such service. Such payment shall be calculated for each month as the sum of the following amounts:

1. OPERATING EXPENSES

Trunk Line's reasonable and necessary gas operating expenses for such month reflected in Accounts 701 to 809, inclusive.

2. DEPRECIATION

One Twelfth (1/12) of Trunk Line's annual depreciation expense computed by the application of annual straight line depreciation rates to Trunk Line's actual legitimate investment in depreciable plant (including intangible plant) at the first day of such month. The annual depreciation rates are as follows:

(a)	Office furniture and equipment, tool and work equipment, and telemetering equipment.	10%
(b)	Transportation equipment.	33-1/3%
(c)	Trunk Line's remaining legitimate investment	4-1/4%

3. TAXES

Accruals recorded for such month with respect to income and other taxes associated with Trunk Line's natural gas operations and adjustments of accruals for tax expenses previously billed.

EXHIBIT C

4. RETURN

Return at an annual rate of 7.5% computed for such month by the application of the monthly rate of 0.625% to Trunk Line's net investment rate base computed as of the date of Trunk Line's initial operation and as of the first day of each billing month thereafter, by adding together the items listed below:

(a) Trunk Line's actual legitimate original investment in gas plant in service, gas plant held for future use, gas plant leased to others and other utility plant, less the balances in depreciation reserves and contributions in aid of construction.

(b) An allowance for working capital consisting of the sum of the following:

(i) Necessary materials and supplies for operating purposes.

(ii) Cash working capital equal to one-eighth (1/8) of cash operating expenses for the preceding 12 months, exclusive of the cost of any purchased gas and exclusive of any transmission or compression of gas by others; provided that for each month during the first 12 months of service by Trunk Line and during the first 12 months following any major plant expansion the amount utilized shall be 150% of the cash operating expenses during the month.

EXHIBIT C

5. CREDITS FOR OTHER GAS REVENUES

Credits for gas revenues collected under other rate schedules or contracts, other gas revenues, and amounts included in Accounts 508 and 509.

6. ADJUSTMENT FOR ACCRUED AND DEFERRED ITEMS

Income and expense accounts for each month shall reflect accrued and deferred items. Accruals shall be adjusted to reflect the difference between accruals and actual amounts when conclusive determinations and settlements are made.

7. DEVELOPMENT PERIOD REDUCTION IN CHARGES

For the periods specified below, the depreciation rate set forth in Section 2. (c) above, and the rate of return set forth in Section 4. above, shall be reduced to the annual rates shown below:

Period	Reduced Depreciation Rate	Reduced Rate of Return
(a) From date of commencement of transportation service hereunder to the 31st day of October falling nearest the completion of one year of transportation service	3-1/2%	5-1/4%
(b) From the expiration of the period set out in (a) above to the 31st day of October next following	3-3/4%	6-1/2%
(c) From the expiration of the period set out in (b) above to the 31st day of October next following	4%	6-3/4%

EXHIBIT C

8. IDENTIFICATION OF ACCOUNTS

The Account Numbers utilized herein are those specified in the Uniform System of Accounts prescribed by the Federal Power Commission for natural gas pipe line companies operating in the United States.

JMB

Exhibit 7
Schedule 1
Plan 1

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST SUMMARY - YEARS ENDING OCTOBER 31, 1956 THROUGH 1962

PLAN 1

	Construction Year Ending October 31 (1956-11/30)							
	1956	1957	1958	1959	1960	1961	1962	Total
Direct Construction Costs								
Main Line and Laterals								
Alberta-Saskatchewan Border to Winnipeg	$29,040,593	$ 54,950,697	$ 353,000	$ -	$ -	$ -	$ -	$ 84,344,290
Winnipeg to Manitoba-Ontario Border	270,005	13,611,953	51,000	-	-	-	-	13,932,958
Kapuskasing to Toronto Junction	1,556,502	337,000	75,255,275	-	-	-	-	77,148,777
Toronto Junction to Sheridan	-	-	2,464,548	-	-	-	-	2,464,548
Toronto Junction to Montreal	1,523,381	214,000	23,823,571	-	-	-	-	25,560,952
Ottawa Lateral	110,071	-	1,976,971	-	-	-	-	2,087,042
Subtotal	32,500,552	69,113,650	103,924,365	-	-	-	-	205,538,567
Compressor Stations and Housing	-	5,776,000	6,725,000	3,038,000	13,339,000	5,307,000	8,835,000	43,020,000
Subtotal	32,500,552	74,989,650	110,649,365	3,038,000	13,339,000	5,307,000	8,835,000	248,558,567
Niagara Line-Direct purchase from owners	-	-	5,400,000	-	-	-	-	5,400,000
Total Trans-Canada Pipe Lines Limited	32,500,552	74,889,650	116,049,365	3,038,000	13,339,000	5,307,000	8,835,000	253,958,567
Crown Corporation	2,144,159	55,381,421	64,149,420	2,169,000	6,114,000	4,814,000	4,345,000	139,117,000
Total	$34,644,711	$130,271,071	$180,198,785	$5,207,000	$19,453,000	$10,121,000	$13,180,000	$393,075,567
Interest During Construction								
Main Line and Laterals								
Alberta-Saskatchewan Border to Winnipeg	$ 549,678	$ 2,987,426	$ 5,072,973	$ -	$ -	$ -	$ -	$ 8,610,077
Winnipeg to Manitoba-Ontario Border	9,450	2,390,667	838,915	-	-	-	-	3,239,032
Kapuskasing to Toronto Junction	54,478	108,955	1,231,783	-	-	-	-	1,395,216
Toronto Junction to Sheridan	-	-	37,394	-	-	-	-	37,394
Toronto Junction to Montreal	53,318	106,637	451,080	-	-	-	-	611,035
Ottawa Lateral	3,852	7,705	156,658	-	-	-	-	168,215
Subtotal	670,776	5,601,390	7,788,803	-	-	-	-	14,060,969
Compressor Stations and Housing	-	101,080	468,232	53,165	233,432	92,873	154,612	1,103,394
Subtotal	670,776	5,702,470	8,257,035	53,165	233,432	92,873	154,612	15,164,363
Niagara Line-Direct purchase from owners	-	-	-	-	-	-	-	-
Total Trans-Canada Pipe Lines Limited	670,776	5,702,470	8,257,035	53,165	233,432	92,873	154,612	15,164,363
Crown Corporation	37,523	559,633	18,979	18,979	53,497	42,122	38,019	768,752
Total	$ 708,299	$ 6,262,103	$ 8,276,014	$ 72,144	$ 286,929	$ 134,995	$ 192,631	$ 15,933,115
Total Construction Costs								
Main Line and Laterals								
Alberta-Saskatchewan Border to Winnipeg	$29,590,271	$ 57,938,123	$ 5,425,973	$ -	$ -	$ -	$ -	$ 92,954,367
Winnipeg to Manitoba-Ontario Border	279,455	16,002,620	889,915	-	-	-	-	17,171,990
Kapuskasing to Toronto Junction	1,610,980	445,955	76,487,058	-	-	-	-	78,543,993
Toronto Junction to Sheridan	-	-	2,501,942	-	-	-	-	2,501,942
Toronto Junction to Montreal	1,576,699	320,637	24,274,651	-	-	-	-	26,171,987
Ottawa Lateral	113,923	7,705	2,133,629	-	-	-	-	2,255,257
Subtotal	33,171,328	74,715,040	111,713,168	-	-	-	-	219,599,536
Compressor Stations and Housing	-	5,877,080	7,193,232	3,091,165	13,572,432	5,399,873	8,989,612	44,123,394
Subtotal	33,171,328	80,592,120	118,906,400	3,091,165	13,572,432	5,399,873	8,989,612	263,722,930
Niagara Line-Direct purchase from owners	-	-	5,400,000	-	-	-	-	5,400,000
Total Trans-Canada Pipe Lines Limited	33,171,328	80,592,120	124,306,400	3,091,165	13,572,432	5,399,873	8,989,612	269,122,930
Crown Corporation	2,181,682	55,941,054	64,168,399	2,187,979	6,167,497	4,856,122	4,383,019	139,885,752
Total	$35,353,010	$136,533,174	$188,474,799	$5,279,144	$19,739,929	$10,255,995	$13,372,631	$409,008,682

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED OPERATION AND MAINTENANCE EXPENSES

PLAN 1

	Unit Cost	1957/58 Quantity	1957/58 $	1958/59 Quantity	1958/59 $	1959/60 Quantity	1959/60 $	1960/61 Quantity	1960/61 $	1961/62 Quantity	1961/62 $	1962/63 Quantity	1962/63 $
1. Pipeline Maintenance and Patrol													
(a) Western Zone	$ 400/Mi.	586	$ 234,000	586	$ 234,000	586	$ 234,000	586	$ 234,000	586	$ 234,000	586	$ 234,000
(b) Central Zone	700/Mi.	395	276,500	1,251	876,000	1,251	876,000	1,251	876,000	1,251	876,000	1,251	876,000
(c) Eastern Zone	300/Mi.			375	113,000	375	113,000	375	113,000	375	113,000	375	113,000
2. Niagara Line Maintenance and Patrol	300/Mi.	-	-	76	22,800	76	22,800	76	22,800	76	22,800	76	22,800
3. Communications	135/Mi.	981	132,400	2,288	308,900	2,288	308,900	2,288	308,900	2,288	308,900	2,288	308,900
Subtotal			$ 642,900		$1,554,700		$1,554,700		$1,554,700		$1,554,700		$1,554,700
4. Compressor Station - O & M													
(a) Centrifugal	$ 8/H.P.	7,600	$ 30,400 1/	15,200	$ 121,600	15,200	$ 121,600	38,000	$ 304,000	45,600	$ 364,800	60,800	$ 486,400
(b) Reciprocating	$ 16/H.P.	5,000	40,000 1/	17,500	280,000	30,000	480,000	54,000	864,000	76,500	1,224,000	99,000	1,584,000
(c) Housing Operation	$7,000/Sta.	2	14,000	6	42,000	8	56,000	13	91,000	15	105,000	15	105,000
5. Measuring and Regulating Stations - O & M	$6,000/Sta.	7	42,000	43	258,000	43	258,000	43	258,000	43	258,000	43	258,000
6. Contingencies			75,000		250,000		250,000		250,000		250,000		250,000
7. Total Operation and Maintenance			$ 844,300		$2,506,300		$2,720,300		$3,321,700		$3,756,500		$4,238,100
8. Administration and Overhead 2/			422,200		1,190,500		1,224,100		1,777,100		1,878,300		1,695,200
9. Total Expenses			$1,266,500		$3,696,800		$3,944,400		$5,098,800		$5,634,800		$5,933,300

Notes:

1/ Compressor station operation and maintenance expense for 1957/58 computed on basis of $4/installed H.P. for centrifugal stations and $8/installed H.P. for reciprocating.

2/ Administration and overhead figured as follows: 1957/58 - 50%, 1958/59 - 47.5%, 1959/60 - 45%, 1960/61 - 42.5%, 1961/62 - 40%, 1962/63 - 40%.

Exhibit 7
Schedule 3

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED GAS SALES AND REVENUE

PLAN 1

	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63
Winnipeg and West						
Requirements - MCF						
Saskatchewan Power Corporation	3,294,100	3,987,600	4,681,100	5,201,300	5,894,800	6,588,301
Plains Western Gas & Electric Company	931,180	1,104,103	1,261,858	1,401,150	1,538,860	1,656,240
Manitoba Power Corporation	-	1,000,000	1,240,000	2,100,000	3,100,000	-
Intercity Gas Company	1,015,400	1,092,400	1,166,600	1,238,200	1,320,600	1,396,000
Winnipeg & Central Gas Company	4,872,000	6,127,000	7,157,000	8,323,000	9,591,000	10,579,000
Total	10,112,680	13,311,103	15,506,558	18,263,650	21,445,260	20,219,541
Revenue						
Saskatchewan Power Corporation	$ 690,467	$ 835,830	$ 981,192	$ 1,090,228	$ 1,235,590	$ 1,380,952
Plains Western Gas & Electric Company	252,853	347,792	397,485	489,132	539,200	579,450
Manitoba Power Corporation	-	250,000	310,000	420,000	620,000	-
Intercity Gas Company	313,884	337,807	360,849	457,256	488,568	517,220
Winnipeg & Central Gas Company	1,431,956	1,871,195	2,231,765	2,616,095	3,050,735	3,439,475
Total	$2,689,160	$ 3,642,624	$ 4,281,291	$ 5,072,711	$ 5,934,093	$ 5,917,097

	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63
East of Winnipeg						
Requirements - MCF						
Northern Ontario Natural Gas Company Limited						
Western Ontario Zone	6,223,000 1/	7,042,700	7,756,300	8,625,000	9,835,000	9,835,000
Northern Ontario Zone	-	10,862,900	15,385,600	21,487,900	22,427,300	23,382,900
Subtotal	6,223,000	17,905,600	23,141,900	30,112,900	32,262,300	33,217,900
Barrie, Orillia, etc.	-	580,000	914,000	1,261,000	1,524,000	1,732,000
The Consumers' Gas Company of Toronto	-	17,310,000	19,568,000	21,693,000	23,318,000	25,567,000
Union Gas Company of Canada, Limited	-	5,000,000	21,500,000	24,900,000	28,300,000	31,300,000
The Grimsby Natural Gas Company, Limited	-	111,000	120,000	128,000	137,000	145,000
Provincial Gas Company Limited	-	5,434,000	5,638,000	5,821,000	5,996,000	6,174,000
Dominion Natural Gas Company, Limited	-	300,000	500,000	600,000	700,000	780,000
Lakeland Natural Gas Limited	-	1,425,000	2,371,000	2,895,000	3,771,000	4,001,000
Lake Shore Group	-	2,957,000	3,936,000	3,933,000	4,013,000	4,130,000
Interprovincial Utilities Limited	-	9,803,000	10,254,000	10,705,000	11,155,000	11,617,000
Quebec Natural Gas Corporation	-	18,400,000	21,790,000	24,825,000	28,205,000	31,510,000
Total	6,223,000	79,225,600	109,732,900	126,873,900	139,381,300	150,173,900
Total Requirements in MCF - East and West of Winnipeg	16,335,680	92,536,703	125,239,458	145,137,550	160,826,560	170,393,441

	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63
Revenue						
Northern Ontario Natural Gas Company Limited						
Western Ontario Zone	$2,104,254 1/	$ 2,455,595	$ 2,714,035	$ 3,028,650	$ 3,466,870	$ 3,466,870
Northern Ontario Zone	-	4,616,530	6,379,700	9,137,780	9,647,460	10,141,510
Subtotal	2,105,254	7,072,125	9,093,735	12,166,430	13,114,330	13,608,380
Barrie, Orillia, etc.	-	308,560	486,248	670,852	990,600	1,125,800
The Consumers' Gas Company of Toronto	-	8,343,888	9,442,083	10,467,463	11,311,681	12,388,491
Union Gas Company of Canada, Limited	-	1,500,000	7,710,000	9,036,000	10,362,000	11,532,000
The Grimsby Natural Gas Company, Limited	-	59,052	63,840	68,096	89,050	94,250
Provincial Gas Company Limited	-	2,195,474	2,263,742	2,300,200	2,377,834	2,457,000
Dominion Natural Gas Company, Limited	-	159,600	266,000	319,200	455,000	507,000
Lakeland Natural Gas Limited	-	663,840	1,105,200	1,347,240	1,758,510	1,866,900
Lake Shore Group	-	914,792	1,527,179	1,527,491	1,557,551	1,610,831
Interprovincial Utilities Limited	-	3,605,717	4,018,929	4,361,898	4,799,076	5,121,079
Quebec Natural Gas Corporation	-	7,665,100	9,277,800	11,019,900	13,055,700	14,705,400
Total	$2,105,254	$32,508,148	$45,254,756	$53,284,770	$59,871,332	$65,017,131
Total Revenue - East and West of Winnipeg	$4,794,414	$36,150,772	$49,536,047	$58,357,481	$65,805,425	$70,934,228

1/ Kenora, Dryden, Port Arthur and Fort William only, natural gas service to Nipigon and Geraldton assumed to commence November 1, 1958.

Exhibit 7
Schedule 4
Plan 1

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED GAS PURCHASE REQUIREMENTS (MMCF) AND COST OF GAS PURCHASED

PLAN 1

	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63
Gas Purchased for Sale	16,336	92,537	125,239	145,138	160,827	170,393
Gas for Compressor Fuel	182	2,451	4,056	6,525	8,416	10,360
Subtotal	16,518	94,988	129,295	151,663	169,243	180,753
Losses 1%	165	950	1,293	1,517	1,692	1,808
Subtotal	16,683	95,938	130,588	153,180	170,935	182,561
Gas Purchased for						
Cleaning and purging	217	-	-	-	-	-
Filling the line	2,357	-	-	-	-	-
Total Purchased Gas	19,257	95,938	130,588	153,180	170,935	182,561
Cost of Gas Purchased - ¢ per Mcf						
Cost of gas	10.22916	10.44227	10.69800	10.95372	11.20945	11.46518
Transportation cost	4.09167	4.09167	4.09167	4.09167	4.09167	4.09167
Delivered cost of gas (1)	14.32083	14.53394	14.78967	15.04539	15.30112	15.55685
Cost of Gas Purchased for						
Sale (operating expense)	$2,389,144	$13,943,571	$19,313,534	$23,046,528	$26,154,969	$28,400,741
Cleaning and purging (construction cost)	30,647	-	-	-	-	-
Filling the line (inventory gas)	337,542	-	-	-	-	-
Total Cost of Gas Purchased	$2,757,333	$13,943,571	$19,313,534	$23,046,528	$26,154,969	$28,400,741
Requirements MMcf						
Winnipeg and West	10,113	13,311	15,506	18,264	21,445	20,219
East of Winnipeg	6,223	79,226	109,733	126,874	139,382	150,174
Total	16,336	92,537	125,239	145,138	160,827	170,393
% of Requirements - each year						
Winnipeg and West	61.91	14.38	12.38	12.58	13.33	11.87
East of Winnipeg	38.09	85.62	87.62	87.42	86.67	88.13
Total	100.00	100.00	100.00	100.00	100.00	100.00
Allocation of total purchased MMcf based on requirements in each year						
Winnipeg and West	11,922	13,796	16,167	19,270	22,786	21,670
East of Winnipeg	7,335	82,142	114,421	133,910	148,149	160,891
Total	19,257	95,938	130,588	153,180	170,935	182,561

(1) At Saskatchewan Gate.

Exhibit 7
Schedule 5
Plan 1

TRANS-CANADA PIPE LINES LIMITED

DATA RE CROWN CORPORATION SECTION RENTALS AND PURCHASE PRICE - PLAN 1

1. Design capacity east of Winnipeg @ 14.73 psia MMCF per day; 2/3 of capacity for one year equals 74,922 MMCF.
2. Cost of leased facilities equal $124,479,114; 4-1/2% equals $5,601,560; rental payment per Mcf equals $.07476.

12 Months Ended: ($000 Omitted)	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-61
Given Or Assumed The Following:						
Annual Volumes delivered East of Winnipeg @ 14.73 psia MMCF	7,335	82,142	114,421	133,910	148,149	160,891
Annual Amount of Mcf Rental Payments (@ $.07476 per Mcf)	548	6,141	8,554	10,011	11,076	12,028
Capital Cost per Agreement as of Beginning of Each Year	58,123	122,291	124,479	130,647	135,503	139,886
(A) Calculation of Duration of 1% Payment Per Section 6 (b) (iv) of Agreement dated 11/21/55 with Government of Canada (Disregarding the Calendar Year Element) 7% Per Annum on Capital Costs	4,069	8,560	8,714	9,145	9,485	9,792
Less:						
Annual Amount of Rental Payment - Based upon Mcf	548	6,141	8,554	10,011	11,076	12,028
- Based on 1% of $124,479	-	-	-	-	1,245	1,036
Total	548	6,141	8,554	10,011	12,321	13,064
(1) Deficiency - Per Year	3,521	2,419	160	(866)	(2,836)	(3,272)
(2) - Cumulative (Line 4 Preceding Year Plus Line 1)	3,521	5,940	6,223	5,569	2,958	(111)
(3) Interest @ 3-1/2% on Deficiency at End of Preceding Year	-	123	212	225	203	111
(4) Total Net Deficiency	3,521	6,063	6,435	5,794	3,161	-

(B) Calculation of Purchase Price From Time to Time

	Under Section 7 or 8 (a) of Agreement				
	Rental Payments from (A) above *	3-1/2% P/A Interest Semi-annually	Amortization Semi-annually	Add Additions As Of Year End	Purchase Price
As of 10-31-57	-	-	-	58,123	58,123
4-30-58	274	1,017	(743)	-	58,866
10-31-58	274	1,030	(756)	64,168	123,790
4-30-59	3,070	2,166	904	-	122,886
10-31-59	3,071	2,151	920	2,188	124,154
4-30-60	4,277	2,173	2,104	-	122,050
10-31-60	4,277	2,136	2,141	6,168	126,077
4-30-61	5,005	2,206	2,799	-	123,278
10-31-61	5,006	2,157	2,849	4,856	125,285
4-30-62	6,160	2,192	3,968	-	121,317
10-31-62	6,161	2,123	4,038	4,383	121,662
4-30-63	6,532	2,129	4,403	-	117,259
10-31-63	6,532	2,052	4,480	-	112,779

	Under Section 8 (b) (1) of Agreement					
	3-1/2% P/A Amortization	Interest @ 3-1/2% on Amortization Cumulative	Amortization Per Year	Amortization Cumulative	Property Costs Time To Time	Purchase Price
As of 10-31-57	-	-	-	-	58,123	58,123
4-30-58	-	-	-	-	-	-
10-31-58	2,034	-	2,034	2,034	122,291	120,257
4-30-59	-	-	-	-	-	-
10-31-59	4,280	71	4,351	6,385	124,479	118,094
4-30-60	-	-	-	-	-	-
10-31-60	4,357	223	4,580	10,965	130,647	119,682
4-30-61	-	-	-	-	-	-
10-31-61	4,573	384	4,957	15,922	135,503	119,581
4-30-62	-	-	-	-	-	-
10-31-62	4,743	557	5,300	21,222	139,886	118,664
4-30-63	-	-	-	-	-	-
10-31-63	4,896	743	5,639	26,861	139,886	113,025

Under Section 8 (b) (2) of Agreement	
Total Purchase Price At Any Time (70% of $124,479)	87,135

* The aggregate of each six months rental will probably vary. However, it is assumed here they will not.

TRANS-CANADA PIPE LINES LIMITED

Income Account Projection

1. Basis of latest Sales Volumes and Rates inside Canada - and without regard to limitations on Gas Volumes in Alberta.
2. Crown Company Facilities Not Purchased.
3. Emerson Lateral Not Constructed.

PLAN 1

Income Account Projection - 12 Months Ended: ($000s Omitted)	10-31-56	10-31-57	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63
Operating Revenues								
Winnipeg & West	$ -	$ -	$2,689	$ 3,643	$ 4,281	$ 5,072	$ 5,934	$ 5,917
East of Winnipeg	-	-	2,105	32,508	45,255	53,285	59,871	65,017
Total Revenues	-	-	4,794	36,151	49,536	58,357	65,805	70,934
(14.73 psia Mcf Unit Cost of Gas at Alberta Border)								
Cost of Gas Purchased	-	-	2,389	13,944	19,314	23,047	26,155	28,401
Operations & Maintenance	-	-	1,267	3,697	3,944	5,099	5,635	5,933
Rentals - Niagara Line	-	75	250	-	-	-	-	-
- Based on Mcf @ 7.476¢, and on Net Profits, per formula	-	-	548	6,141	8,554	10,011	12,321	13,064
Taxes - General	-	87	351	1,164	1,186	1,265	1,311	1,365
Total	-	162	4,305	24,946	32,998	39,422	45,422	48,763
Balance Before Depreciation and Income Taxes	-	(162)	(11)	11,205	16,538	18,935	20,383	22,171
Depreciation Provision	-	-	801	8,336	8,627	8,959	9,211	9,368
Gross Income Before Income Taxes	-	(162)	(812)	2,869	7,911	9,976	11,172	12,803
Taxes - Income (after excess depreciation up to 6% as required)	-	-	-	-	-	-	-	-
Gross Income	-	(162)	(812)	2,869	7,911	9,976	11,172	12,803
Interest - First Mtge. Bonds - Public	-	772	3,729	6,840	6,840	6,840	6,613	6,311
Subordinated Debentures - Public	-	3,025	3,300	3,300	3,300	3,300	3,300	3,300
First Mtge. Bonds - Crown Corp.	-	475	50	-	-	-	-	-
Subordinated Income Notes - Founders	-	-	-	113	480	607	623	623
Amortization of Debt Discount & Expense	-	92	133	133	133	133	133	133
Interest During Construction (Credit)	(671)	(5,702)	(8,257)	(53)	(233)	(93)	(155)	-
Fixed Charges	(671)	(1,338)	(1,045)	10,333	10,520	10,787	10,514	10,367
Net Income	671	1,176	233	(7,464)	(2,609)	(811)	658	2,436
Earned Surplus - Beginning of Year	-	671	1,847	2,080	(5,384)	(7,993)	(8,804)	(8,146)
- End of Year	671	1,847	2,080	(5,384)	(7,993)	(8,804)	(8,146)	(5,710)
Common Shares Outstanding - End of Period		4,928,183	4,928,183	4,928,183	4,928,183	4,928,183	4,928,183	4,928,183
Earnings Per Common Share (Commencing with first year of full operation)				-	-	-	$.13	$.49

Exhibit 7
Schedule 7
Plan 1

TRANS-CANADA PIPE LINES LIMITED
Cash Flow Projection - Plan 1
($000s Omitted)

Cash Flow Projection - 12 Months Ended	10-31-56 (1)	10-31-57	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63
Net Income	671	1,176	233	(7,464)	(2,609)	(811)	658	2,436
Add:								
Depreciation	-	-	801	8,336	8,627	8,959	9,211	9,368
Amortization of Debt Discount and Expense	-	92	133	133	133	133	133	133
Income Tax Accrual	-	-	-	-	-	-	-	-
Subordinated Income Note Interest Accrued - Not Earned or Paid in Current Year	-	-	-	113	480	607	623	-
Total Cash Operations	671	1,268	1,167	1,118	6,631	8,888	10,625	11,937
Less:								
Income Tax Paid	-	-	-	-	-	-	-	-
Subordinated Income Note Interest Paid for Prior Years	-	-	-	-	-	-	1,200	623
Retirement of First Mortgage Bonds - Public	-	-	-	-	-	3,180	6,360	6,360
Retirement of First Mortgage Bonds - Crown Corporation	-	-	-	-	-	-	-	-
Retirement of Subordinated Debentures	-	-	-	-	-	-	-	-
Common Dividends	-	-	-	-	-	-	-	-
Total Recurring Outgo	-	-	-	-	-	3,180	7,560	6,983
Balance - Plus (Minus) Cash	671	1,268	1,167	1,118	6,631	5,708	3,065	4,954
Less:								
Construction	33,171	80,592	118,906	3,091	13,572	5,400	8,990	-
Preliminary Const. Costs Paid at 6/7/56 included in Construction above	(7,974)	-	-	-	-	-	-	-
Acquisition of Niagara Line	-	-	5,400	-	-	-	-	-
Materials & Supplies (Operations & Maintenance)	-	1,000	3,000	-	-	-	-	-
Materials and Supplies (Gas for filling line)	-	-	229	-	-	-	-	-
Bond Interest Accruals in excess of Payments	-	(4,697)	(4,060)	(275)	-	-	-	-
Total Other Requirements	25,197	76,895	123,475	2,816	13,572	5,400	8,990	-
Balance - Plus (Minus) Cash	(24,526)	(75,627)	(122,308)	(1,698)	(6,941)	308	(5,925)	4,954
Add:								
Outside Funds - First Mortgage Bonds - Public	-	45,000	99,000	-	-	-	-	-
- Subordinated Debentures - Public	-	60,000	-	-	-	-	-	-
- First Mortgage Bonds - Crown Corporation	38,000	(38,000)	-	-	-	-	-	-
- Subordinated Income Notes - Founders	-	-	-	7,749	3,070	508	-	-
- Common Stock (2)	-	30,000	-	-	-	-	-	-
(Financing Charges) - First Mortgage Bonds - Public	-	(400)	(463)	-	-	-	-	-
- Subordinated Debentures	-	(2,758)	-	-	-	-	-	-
- Common Stock	-	(1,379)	-	-	-	-	-	-
Prepaid Interest on Subordinated Debentures	-	(6,600)	-	-	-	-	-	-
Total Outside Funds	38,000	85,863	98,537	7,749	3,070	508	-	-
Balance - Plus (Minus) Cash	13,474	10,236	(23,771)	6,051	(3,871)	816	(5,925)	4,954
Cash - Beginning of Period (3)	6,710	20,184	30,420	6,649	12,700	8,829	9,645	3,720
- End of Period (3)	20,184	30,420	6,649	12,700	8,829	9,645	3,720	8,674

(1) From June 7 through October 31, 1956
(2) 1,928,183 shares from Founders @ $8 approx. equals $15,411,456
3,000,000 shares with Subord. Debs. @ $10 equals 30,000,000
4,928,183 $45,411,456
(3) Includes Government Securities

TRANS-CANADA PIPE LINES LIMITED

BALANCE SHEET PROJECTION - PLAN 1

($000s Omitted)

Balance Sheet Projection At:	6-7-56	10-31-56	10-31-57	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63
Assets									
Gross Plant - First of Year	$ -	$ -	$ 33,171	$113,763	$238,069	$241,160	$254,732	$260,132	$269,122
- Additions During Year	-	33,171	80,592	118,906	3,091	13,572	5,400	8,990	-
- Purchase of Niagara Line	-	-	-	5,400	-	-	-	-	-
- End of Year	-	33,171	113,763	238,069	241,160	254,732	260,132	269,122	269,122
Depreciation Reserve	58	58	58	859	9,195	17,822	26,781	35,992	45,360
Net Plant	(58)	33,113	113,705	237,210	231,965	236,910	233,351	233,130	223,762
Investments in Subsidiary Companies	156	156	156	156	156	156	156	156	156
Cash and Government Securities	6,710	20,184	30,420	6,649	12,700	8,829	9,645	3,720	8,674
Materials and Supplies (Operation and Maintenance)	-	-	1,000	4,000	4,000	4,000	4,000	4,000	4,000
Materials and Supplies (Gas for filling line)	-	-	-	229	229	229	229	229	229
Other Current Assets	25	25	25	25	25	25	25	25	25
Prepaid Interest on Subordinated Debentures	-	-	3,575	275	-	-	-	-	-
Unamortized Debt Discount and Expense - First Mortgage Bonds	-	-	400	822	781	740	699	658	617
Unamortized Debt Discount and Expense - Subordinated Debentures	-	-	2,666	2,574	2,482	2,390	2,298	2,206	2,114
Common Capital Stock Expense	-	-	1,379	1,379	1,379	1,379	1,379	1,379	1,379
Miscellaneous Equipment and Structures	252	252	252	252	252	252	252	252	252
Preliminary Construction Costs & Other Deferred Debits	8,336	362	362	362	362	362	362	362	362
Total Assets	$15,421	$54,092	$153,940	$253,933	$254,331	$255,272	$252,396	$246,117	$241,570
Liabilities									
First Mortgage Bonds - Public	$ -	$ -	$ 45,000	$144,000	$144,000	$144,000	$140,820	$134,460	$128,100
Subordinated Debentures - Public	-	-	60,000	60,000	60,000	60,000	60,000	60,000	60,000
First Mortgage Bonds - Crown Corporation	-	38,000	-	-	-	-	-	-	-
Subordinated Income Notes - Founders	-	-	-	-	7,749	10,819	11,327	11,327	11,327
Common Stock (4,928,183 shares at 10/31/63)	1,928	1,928	4,928	4,928	4,928	4,928	4,928	4,928	4,928
Premium on Common Stock	13,483	13,483	40,483	40,483	40,483	40,483	40,483	40,483	40,483
Earned Surplus	-	671	1,847	2,080	(5,384)	(7,993)	(8,804)	(8,146)	(5,710)
Total Capitalization	15,411	54,082	152,258	251,491	251,776	252,237	248,754	243,052	239,128
Accrued Income Taxes Payable	-	-	-	-	-	-	-	-	-
Accrued Interest Unearned on Subordinated Income Notes	-	-	-	-	113	593	1,200	623	-
Other Current Liabilities	10	10	1,682	2,442	2,442	2,442	2,442	2,442	2,442
Total Liabilities	$15,421	$54,092	$153,940	$253,933	$254,331	$255,272	$252,396	$246,117	$241,570
Capitalization Ratios									
First Mortgage Bonds				57.26%	57.19%	57.09%	56.61%	55.32%	53.57%
Subordinated Debentures				23.86	23.83	23.79	24.12	24.69	25.09
Common Equity (Including Subordinated Income Notes)				18.88	18.98	19.12	19.27	19.99	21.34
Total				100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Exhibit 7
Schedule 9
Plan 1

TRANS-CANADA PIPE LINES LIMITED

INTEREST AND DEBT SERVICE COVERAGE

PLAN 1

	1958/59	1959/60	1960/61	1961/62	1962/63
1. Times Coverage of Interest on First Mortgage Bonds, by Gross Income before Dominion Income Tax 1/	.419	1.157	1.458	1.689	2.029
2. Times Coverage of all Interest Paid, exclusive of Interest on Subordinated Income Notes, by Gross Income Before Dominion Income Tax 1/	.283	.780	.984	1.127	1.332
3. Times Coverage of Total Debt Service Requirements (All Interest Paid, exclusive of Interest on Subordinated Income Notes, plus Mortgage Bond and Debenture Retirement Provisions), by Gross Income Before Depreciation 2/	1.105	1.631	1.422	1.253	1.388

	At 10/31/58	At 10/31/59	At 10/31/60	At 10/31/61	At 10/31/62	At 10/31/63
4. Ratio of Mortgage Debt to Gross Property Account 3/	60.49%	59.71%	56.53%	54.13%	49.96%	47.60%
5. Ratio of Mortgage Debt to Net Property Account 3/	60.71	62.08	60.78	60.35	57.68	57.25
6. Ratio of Total Long-Term Debt (exclusive of Subordinated Income Notes) to Gross Property Account 3/	85.69	84.59	80.08	77.20	72.26	69.89
7. Ratio of Total Long-Term Debt (exclusive of Subordinated Income Notes) to Net Property Account 3/	86.00	87.94	86.11	86.06	83.41	84.06

1/ Data from Exhibit 7, Schedule 6.
2/ Data from Exhibit 7, Schedules 6 and 7.
3/ Data from Exhibit 7, Schedule 8.

Exhibit 8
Schedule 1
Plan 2

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST SUMMARY - YEARS ENDING OCTOBER 31, 1956 THROUGH 1962

PLAN 2

	Construction Year Ending October 31 (1956-11/30)							
	1956	1957	1958	1959	1960	1961	1962	Total
Direct Construction Costs								
Main Line and Laterals								
Alberta-Saskatchewan Border to Winnipeg	$29,040,593	$ 54,950,697	$ 353,000	$ -	$ -	$ -	$ -	$ 84,344,290
Winnipeg to Manitoba-Ontario Border	270,005	13,611,953	51,000	-	-	-	-	13,932,958
Kapuskasing to Toronto Junction	1,556,502	337,000	75,255,275	-	-	-	-	77,148,777
Toronto Junction to Sheridan	-	2,464,548	-	-	-	-	-	2,464,548
Toronto Junction to Montreal	1,523,381	23,850,571	187,000	-	-	-	-	25,560,952
Ottawa Lateral	110,071	-	1,976,971	-	-	-	-	2,087,042
Subtotal	32,500,552	95,214,769	77,823,246	-	-	-	-	205,538,567
Compressor Stations and Housing	-	5,776,000	6,725,000	3,038,000	13,339,000	5,307,000	8,835,000	43,020,000
Subtotal	32,500,552	100,990,769	84,548,246	3,038,000	13,339,000	5,307,000	8,835,000	248,558,567
Niagara Line-Direct purchase from owners	-	-	5,400,000	-	-	-	-	5,400,000
Total Trans-Canada Pipe Lines Limited	32,500,552	100,990,769	89,948,246	3,038,000	13,339,000	5,307,000	8,835,000	253,958,567
Crown Corporation	2,144,159	55,381,421	64,149,420	2,169,000	6,114,000	4,814,000	4,345,000	139,117,000
Total	$34,644,711	$156,372,190	$154,097,666	$5,207,000	$19,453,000	$10,121,000	$13,180,000	$393,075,567
Interest During Construction								
Main Line and Laterals								
Alberta-Saskatchewan Border to Winnipeg	$ 549,678	$ 2,987,426	$ 4,054,868	$ -	$ -	$ -	$ -	$ 7,591,972
Winnipeg to Manitoba-Ontario Border	9,450	2,390,667	670,552	-	-	-	-	3,070,669
Kapuskasing to Toronto Junction	54,478	108,955	984,574	-	-	-	-	1,148,007
Toronto Junction to Sheridan	-	43,130	119,555	-	-	-	-	162,685
Toronto Junction to Montreal	53,318	520,277	1,220,510	-	-	-	-	1,794,105
Ottawa Lateral	3,852	7,705	125,218	-	-	-	-	136,775
Subtotal	670,776	6,058,160	7,175,277	-	-	-	-	13,904,213
Compressor Stations and Housing	-	101,080	397,881	53,165	233,432	92,873	154,612	1,033,043
Subtotal	670,776	6,159,240	7,573,159	53,165	233,432	92,873	154,612	14,937,256
Niagara Line-Direct purchase from owners	-	-	-	-	-	-	-	-
Total Trans-Canada Pipe Lines Limited	670,776	6,159,240	7,573,159	53,165	233,432	92,873	154,612	14,937,256
Crown Corporation	37,523	559,633	18,979	18,979	53,497	42,122	38,019	768,752
Total	$ 708,299	$ 6,718,873	$ 7,592,137	$ 72,144	$ 286,929	$ 134,995	$ 192,631	$ 15,706,008
Total Construction Costs								
Main Line and Laterals								
Alberta-Saskatchewan Border to Winnipeg	$29,590,271	$ 57,938,123	$ 4,407,868	$ -	$ -	$ -	$ -	$ 91,936,262
Winnipeg to Manitoba-Ontario Border	279,455	16,002,620	721,552	-	-	-	-	17,003,627
Kapuskasing to Toronto Junction	1,610,980	445,955	76,239,849	-	--	-	-	78,296,784
Toronto Junction to Sheridan	-	2,507,678	119,555	-	-	-	-	2,627,233
Toronto Junction to Montreal	1,576,699	24,370,848	1,407,510	-	-	-	-	27,355,057
Ottawa Lateral	113,923	7,705	2,102,189	-	-	-	-	2,223,817
Subtotal	33,171,328	101,272,929	84,998,523	-	-	-	-	219,442,780
Compressor Stations and Housing	-	5,877,080	7,122,881	3,091,165	13,572,432	5,399,873	8,989,612	44,053,043
Subtotal	33,171,328	107,150,009	92,121,404	3,091,165	13,572,432	5,399,873	8,989,612	263,495,823
Niagara Line-Direct purchase from owners	-	-	5,400,000	-	-	-	-	5,400,000
Total Trans-Canada Pipe Lines Limited	33,171,328	107,150,009	97,521,404	3,091,165	13,572,432	5,399,873	8,989,612	268,895,823
Crown Corporation	2,181,682	55,941,054	64,168,399	2,187,979	6,167,497	4,856,122	4,383,019	139,885,752
Total	$35,353,010	[illegible]	[illegible]	[illegible]	[illegible]	$10,255,995	$13,372,631	$408,781,575

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED OPERATION AND MAINTENANCE EXPENSES

PLAN 2

	Unit Cost	1957/58 Quantity	1957/58 $	1958/59 Quantity	1958/59 $	1959/60 Quantity	1959/60 $	1960/61 Quantity	1960/61 $	1961/62 Quantity	1961/62 $	1962/63 Quantity	1962/63 $
1. Pipeline Maintenance and Patrol													
(a) Western Zone	$ 400/Mi.	[illegible]	$ [illegible]	596	$ 234,000	[illegible]	$ 234,000	[illegible]	$ [illegible]	[illegible]	$ 234,000	[illegible]	$ 234,000
(b) Central Zone	700/Mi.	395	277,000	1,251	876,000	1,251	[illegible]	[illegible]	[illegible]	1,251	[illegible]	1,251	[illegible]
(c) Eastern Zone	300/Mi.	335	100,500	375	113,000	375	113,000	375	113,000	375	113,000	375	113,000
2. Niagara Line Maintenance and Patrol	300/Mi.	-	-	76	22,800	76	22,800	76	22,800	76	22,800	76	22,800
3. Communications	135/Mi.	1,316	178,000	2,288	308,900	2,288	308,900	2,288	308,900	2,288	308,900	2,288	308,900
Subtotal			$ 789,500		$1,554,700		$1,554,700		$1,554,700		$1,554,700		$1,554,700
4. Compressor Station - O & M													
(a) Centrifugal	$ [illegible]/H.P.	7,600	$ 30,400 1/	15,200	$ 121,600	15,200	$ 121,[illegible]	[illegible]	$ 304,000	[illegible]	$ 364,[illegible]	[illegible]	$ [illegible]
(b) Reciprocating	$ 16/H.P.	5,000	40,000 1/	17,500	280,000	30,000	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
(c) Housing Operation	$7,000/Sta.	2	14,000	6	42,000	8	56,000	13	91,000	15	105,000	15	105,000
5. Measuring and Regulating Stations - O & M	$6,000/Sta.	27	162,000	43	258,000	43	258,000	43	258,000	43	258,000	43	258,000
6. Contingencies			75,000		250,000		250,000		250,000		250,000		250,000
7. Total Operation and Maintenance			$1,110,900		$2,506,300		$2,720,300		$3,321,700		$3,756,500		$4,238,100
8. Administration and Overhead 2/			555,500		1,190,500		1,224,100		1,777,100		1,878,300		1,695,200
9. Total Expenses			$1,666,400		$3,696,800		$3,944,400		$5,098,800		$5,634,800		$5,933,300

Notes:

1/ Compressor station operation and maintenance expense for 1957/58 computed on basis of $4/installed H.P. for centrifugal stations and $8 installed H.P. for reciprocating.

2/ Administration and overhead figured as follows: 1957/58 - 50%, 1958/59 - 47.5%, 1959/60 - 45%, 1960/61 - 42.5%, 1961/62 - 40%, 1962/63 - 40%.

Exhibit 8
Schedule 3

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED GAS SALES AND REVENUE

PLAN 2

	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63
Winnipeg and West						
Requirements - MCF						
Saskatchewan Power Corporation	3,294,100	3,987,600	4,681,100	5,201,300	5,894,800	6,588,301
Plains Western Gas & Electric Company	931,180	1,104,103	1,261,858	1,401,150	1,538,860	1,656,240
Manitoba Power Corporation	-	1,000,000	1,240,000	2,100,000	3,100,000	-
Intercity Gas Company	1,015,400	1,092,400	1,166,600	1,238,200	1,320,600	1,396,000
Winnipeg & Central Gas Company	4,872,000	6,127,000	7,157,000	8,323,000	9,591,000	10,579,000
Total	10,112,680	13,311,103	15,506,558	18,263,650	21,445,260	20,219,541
Revenue						
Saskatchewan Power Corporation	$ 690,467	$ 835,830	$ 981,192	$ 1,090,226	$ 1,235,590	$ 1,380,952
Plains Western Gas & Electric Company	252,953	347,792	397,485	489,132	539,200	579,450
Manitoba Power Corporation	-	250,000	310,000	420,000	620,000	-
Intercity Gas Company	313,984	337,807	360,849	457,256	488,568	517,220
Winnipeg & Central Gas Company	1,431,956	1,871,195	2,231,765	2,616,095	3,050,735	3,439,475
Total	$ 2,689,160	$ 3,642,624	$ 4,281,291	$ 5,072,711	$ 5,934,093	$ 5,917,097
East of Winnipeg						
Requirements - MCF						
Northern Ontario Natural Gas Company Limited						
Western Ontario Zone	6,223,000 1/	7,042,700	7,756,300	8,625,000	9,835,000	9,835,000
Northern Ontario Zone	-	10,862,900	15,385,600	21,487,900	22,427,300	23,382,900
Subtotal	6,223,000	17,905,600	23,141,900	30,112,900	32,262,300	33,217,900
Barrie, Orillia, etc.	-	580,000	914,000	1,261,000	1,524,000	1,732,000
The Consumers' Gas Company of Toronto	-	17,310,000	19,568,000	21,693,000	23,318,000	25,567,000
Union Gas Company of Canada, Limited	-	5,000,000	21,500,000	24,900,000	28,300,000	31,300,000
The Grimsby Natural Gas Company, Limited	-	111,000	120,000	128,000	137,000	145,000
Provincial Gas Company Limited	-	5,434,000	5,638,000	5,821,000	5,996,000	6,174,000
Dominion Natural Gas Company, Limited	-	300,000	500,000	600,000	700,000	780,000
Lakeland Natural Gas Limited	-	1,425,000	2,371,000	2,895,000	3,771,000	4,001,000
Lake Shore Group	-	2,957,000	3,936,000	3,933,000	4,013,000	4,130,000
Interprovincial Utilities Limited	-	9,803,000	10,254,000	10,705,000	11,155,000	11,617,000
Quebec Natural Gas Corporation	13,400,000	21,790,000	26,825,000	31,205,000	31,510,000	35,214,000
Total	19,623,000	82,615,600	114,767,900	133,253,900	142,686,300	153,877,900
Total Requirements in MCF - East and West of Winnipeg	29,735,680	95,926,703	130,274,458	151,517,550	164,131,560	174,097,441
Revenue						
Northern Ontario Natural Gas Company Limited						
Western Ontario Zone	$ 2,105,254 1/	$ 2,455,595	$ 2,714,035	$ 3,028,650	$ 3,466,870	$ 3,466,870
Northern Ontario Zone	-	4,616,530	6,379,700	9,137,780	9,647,460	10,141,510
Subtotal	2,105,254	7,072,125	9,093,735	12,166,430	13,114,330	13,608,380
Barrie, Orillia, etc.	-	308,560	486,248	670,852	990,600	1,125,800
The Consumers' Gas Company of Toronto	-	8,343,888	9,442,083	10,467,463	11,311,681	12,388,491
Union Gas Company of Canada, Limited	-	1,500,000	7,710,000	9,036,000	10,362,000	11,532,000
The Grimsby Natural Gas Company, Limited	-	59,052	63,840	68,096	89,050	94,250
Provincial Gas Company Limited	-	2,195,474	2,263,742	2,300,200	2,377,834	2,457,000
Dominion Natural Gas Company, Limited	-	159,600	266,000	319,200	455,000	507,000
Lakeland Natural Gas Limited	-	663,840	1,105,200	1,347,240	1,758,510	1,866,900
Lake Shore Group	-	914,792	1,527,179	1,527,491	1,557,551	1,610,831
Interprovincial Utilities Limited	-	3,605,717	4,018,929	4,361,898	4,799,076	5,121,079
Quebec Natural Gas Corporation	6,775,200	9,277,800	11,019,900	13,955,700	14,705,400	16,432,080
Total	$ 8,880,454	$34,100,848	$47,596,856	$56,220,570	$61,521,032	$66,743,811
Total Revenue - East and West of Winnipeg	$11,569,614	$37,743,472	$51,878,147	$61,293,281	$67,455,125	$72,660,908

1/ Kenora, Dryden, Port Arthur and Fort William only, natural gas service to Nipigon and Geraldton assumed to commence November 1, 1958.

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED GAS PURCHASE REQUIREMENTS (MMCF) AND COST OF GAS PURCHASED

PLAN 2

Exhibit 8
Schedule 4
Plan 2

	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63
Gas Purchased for Sale						
From Producers	16,336	95,927	130,274	151,518	164,132	174,097
From Others (2)	13,400	-	-	-	-	-
Subtotal	29,736	95,927	130,274	151,518	164,132	174,097
Gas for Compressor Fuel	182	2,519	4,187	6,755	8,558	10,553
Subtotal	29,918	98,446	134,461	158,273	172,690	184,650
Losses 1%	299	984	1,345	1,583	1,727	1,846
Subtotal	30,217	99,430	135,806	159,856	174,417	186,496
Gas Purchased for						
Cleaning and purging (15 from others) (2)	217	-	-	-	-	-
Filling the line (84 from others) (2)	2,357	-	-	-	-	-
Total Purchased Gas	32,791	99,430	135,806	159,856	174,417	186,496
Cost of Gas Purchased - ¢ per Mcf						
From Producers						
Cost of gas	10.22916	10.44227	10.69800	10.95372	11.20945	11.46518
Transportation cost	4.09167	4.09167	4.09167	4.09167	4.09167	4.09167
Delivered cost of gas (1)	14.32083	14.53394	14.78967	15.04539	15.30112	15.55685
From Others	38.69000	-	-	-	-	-
Cost of Gas Purchased for						
Sale (operating expenses)						
From Producers	$2,389,144	$14,451,097	$20,085,259	$24,050,959	$26,687,754	$29,012,903
From Others (2)	5,236,040	-	-	-	-	-
Cleaning and purging (construction cost)						
From Producers	28,498	-	-	-	-	-
From Others (2)	5,839	-	-	-	-	-
Filling the line (inventory gas)						
From Producers	325,512	-	-	-	-	-
From Others (2)	32,696	-	-	-	-	-
Total Cost of Gas Purchased	$8,017,729	$14,451,097	$20,085,259	$24,050,959	$26,687,754	$29,012,903
Requirements MMCF						
Winnipeg and West	10,113	13,311	15,506	18,264	21,445	20,219
East of Winnipeg (excludes "From Others")	6,223	82,616	114,768	133,254	142,687	153,878
Total	16,336	95,927	130,274	151,518	164,132	174,097
% of Requirements - each year						
Winnipeg and West	61.91	13.88	11.90	12.05	13.07	11.61
East of Winnipeg	38.09	86.12	88.10	87.95	86.93	88.39
Total	100.00	100.00	100.00	100.00	100.00	100.00
Allocation of total purchased MMCF (excluding "From Others" (2)) based on requirements in each year						
Winnipeg and West	11,859	13,801	16,161	19,263	22,796	21,652
East of Winnipeg	7,296	85,629	119,645	140,593	151,621	164,844
Total	19,155	99,430	135,806	159,856	174,417	186,496

(1) At Saskatchewan Gate.
(2) For Montreal and Sheridan Lines.

TRANS-CANADA PIPE LINES LIMITED

DATA RE CROWN CORPORATION SECTION RENTALS AND PURCHASE PRICE - PLAN 2

1. Design capacity east of Winnipeg @ 14.73 psia MMCF per day; 2/3 of capacity for one year equals 74,922 MMCF.
2. Cost of leased facilities equal $124,479,114; 4-1/2% equals $5,601,560; rental payment per Mcf equals $.07476.

12 Months Ended: ($000 Omitted)	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63
Given Or Assumed The Following:						
Annual Volumes delivered East of Winnipeg @ 14.73 psia MMCF	7,296	85,629	119,645	140,593	151,621	164,844
Annual Amount of Mcf Rental Payments (@ $.07476 per Mcf)	545	6,402	8,945	10,511	11,335	12,324
Capital Cost per Agreement as of Beginning of Each Year	58,123	122,291	124,479	130,647	135,503	139,886
(A) Calculation of Duration of 1% Payment per Section 6 (b) (iv) of Agreement dated 11/21/55 with Government of Canada (Disregarding the Calendar Year Element) 7% per annum on Capital Costs	4,069	8,560	8,714	9,145	9,485	9,792
Less:						
Annual Amount of Rental Payment - Based upon Mcf	545	6,402	8,945	10,511	11,335	12,324
- Based on 1% of $124,479	-	-	-	-	1,245	-
Total	545	6,402	8,945	10,511	12,580	12,324
(1) Deficiency - Per Year	3,524	2,158	(231)	(1,366)	(3,095)	(2,532)
(2) - Cumulative (Line 4 Preceding Year Plus Line 1)	3,524	5,682	5,574	4,411	1,518	(853)
(3) Interest @ 3-1/2% on Deficiency at End of Preceding Year	-	123	203	202	161	59
(4) Total Net Deficiency	3,524	5,805	5,777	4,613	1,679	(794)

(B) Calculation of Purchase Price From Time to Time

	Under Section 7 or 8 (a) of Agreement					Under Section 8 (b) (1) of Agreement					
	Rental Payments from (A) above *	3-1/2% P/A Interest Semi-annually	Amortization Semi-annually	Add Additions As Of Year End	Purchase Price	3-1/2% P/A Amortization	Interest @ 3-1/2% on Amortization Cumulative	Amortization Per Year	Amortization Cumulative	Property Costs Time To Time	Purchase Price
As of 10-31-57	-	-	-	58,123	58,123	-	-	-	-	58,123	58,123
4-30-58	272	1,017	(745)	-	58,868	-	-	-	-	-	-
10-31-58	273	1,030	(757)	64,168	123,793	2,034	-	2,034	2,034	122,291	120,257
4-30-59	3,201	2,166	1,035	-	122,758	-	-	-	-	-	-
10-31-59	3,201	2,148	1,053	2,188	123,893	4,280	71	4,351	6,385	124,479	118,094
4-30-60	4,472	2,168	2,304	-	121,589	-	-	-	-	-	-
10-31-60	4,473	2,128	2,345	6,168	125,412	4,357	223	4,580	10,965	130,647	119,682
4-30-61	5,255	2,195	3,060	-	122,352	-	-	-	-	-	-
10-31-61	5,256	2,141	3,115	4,856	124,093	4,573	384	4,957	15,922	135,503	119,581
4-30-62	6,290	2,172	4,118	-	119,975	-	-	-	-	-	-
10-31-62	6,290	2,100	4,190	4,383	120,168	4,743	557	5,300	21,222	139,886	118,664
4-30-63	6,162	2,103	4,059	-	116,109	-	-	-	-	-	-
10-31-63	6,162	2,032	4,130	-	111,979	4,896	743	5,639	26,861	139,886	113,025
Under Section 8 (b) (2) of Agreement Total Purchase Price At Any Time (70% of $124,479)					87,135						

* The aggregate of each six months rental will probably vary. However, it is assumed here they will not.

Exhibit 8
Schedule 6
Plan 2

TRANS-CANADA PIPE LINES LIMITED
Income Account Projection
1. Basis of latest Sales Volumes and Rates inside Canada - and without regard to limitations on Gas Volumes in Alberta.
2. Crown Company Facilities Not Purchased.
3. Emerson Lateral Not Constructed.

PLAN 2

Income Account Projection - 12 Months Ended: ($000s Omitted)	10-31-56	10-31-57	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63
Operating Revenues								
Winnipeg & West	$ -	$ -	$ 2,689	$ 3,643	$ 4,281	$ 5,072	$ 5,934	$ 5,917
East of Winnipeg	-	-	8,881	34,100	47,597	56,221	61,521	66,744
Total Revenues	-	-	11,570	37,743	51,878	61,293	67,455	72,661
(14.73 psia Mcf Unit Cost of Gas at Alberta Border)								
Cost of Gas Purchased	-	-	7,625	14,451	20,085	24,051	26,688	29,013
Operations & Maintenance	-	-	1,666	3,697	3,944	5,099	5,635	5,933
Rentals - Niagara Line	-	75	250	-	-	-	-	-
- Based on Mcf @ 7.476¢, and on Net Profits, per formula	-	-	545	6,402	8,945	10,511	12,580	12,324
Taxes - General	-	87	577	1,164	1,186	1,265	1,311	1,365
Total	-	162	10,663	25,714	34,160	40,926	46,214	48,635
Balance Before Depreciation and Income Taxes	-	(162)	907	12,029	17,718	20,367	21,241	24,026
Depreciation Provision	-	-	1,989	8,328	8,619	8,951	9,203	9,360
Gross Income Before Income Taxes	-	(162)	(1,082)	3,701	9,099	11,416	12,038	14,666
Taxes - Income (after excess depreciation up to 6% as required)	-	-	-	-	-	-	-	-
Gross Income	-	(162)	(1,082)	3,701	9,099	11,416	12,038	14,666
Interest - First Mtge. Bonds - Public	-	772	3,729	6,840	6,840	6,840	6,613	6,311
Subordinated Debentures - Public	-	3,025	3,300	3,300	3,300	3,300	3,300	3,300
First Mtge. Bonds - Crown Corp.	-	475	50	-	-	-	-	-
Subordinated Income Notes - Founders	-	-	-	105	427	495	495	495
Amortization of Debt Discount & Expense	-	92	133	133	133	133	133	133
Interest During Construction (Credit)	(671)	(6,159)	(7,573)	(53)	(233)	(93)	(155)	-
Fixed Charges	(671)	(1,795)	(361)	10,325	10,467	10,675	10,386	10,239
Net Income	671	1,633	(721)	(6,624)	(1,368)	741	1,652	4,427
Earned Surplus - Beginning of Year	-	671	2,304	1,583	(5,041)	(6,409)	(5,668)	(4,016)
- End of Year	671	2,304	1,583	(5,041)	(6,409)	(5,668)	(4,016)	411
Common Shares Outstanding - End of Period		4,928,183	4,928,183	4,928,183	4,928,183	4,928,183	4,928,183	4,928,183
Earnings Per Common Share (Commencing with first year of full operation)				-	-	-	$.34	$.90

TRANS-CANADA PIPE LINES LIMITED

CASH FLOW PROJECTION - PLAN 2

($000's Omitted)

Exhibit 8
Schedule 7
Plan 2

Cash Flow Projection - 12 Months Ended	10-31-56(1)	10-31-57	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63
Net Income	$ 671	$ 1,633	$ (726)	$(6,573)	$(1,017)	$ (77)	$ 2,072	$ 4,817
Add:								
Depreciation	-	-	1,989	8,328	8,619	8,951	9,203	9,360
Amortization of Debt Discount and Expense	-	92	133	133	133	133	133	133
Income Tax Accrual	-	-	-	-	-	-	-	-
Total Cash Operations	671	1,725	1,396	1,888	7,735	9,007	11,408	14,310
Less:								
Income Tax Paid	-	-	-	-	-	-	-	-
Retirement of First Mortgage Bonds - Public	-	-	-	-	-	3,180	6,360	6,360
Retirement of First Mortgage Bonds - Crown Corporation	-	-	-	-	-	-	-	-
Retirement of Subordinated Debentures	-	-	-	-	-	-	-	-
Common Dividends	-	-	-	-	-	-	-	-
Total Recurring Outgo	-	-	-	-	-	3,180	6,360	6,360
Balance - Plus (Minus) Cash	671	1,725	1,396	1,888	7,735	5,827	5,048	7,950
Less:								
Construction	33,171	107,150	92,121	3,091	13,572	5,400	8,990	-
Preliminary Const. Cost Paid at 6/7/56 included in construction above	(7,974)	-	-	-	-	-	-	-
Acquisition of Niagara Line	-	-	5,400	-	-	-	-	-
Materials and Supplies (Operation and Maintenance)	-	2,000	2,000	-	-	-	-	-
Materials and Supplies (Gas for filling line)	-	-	249	-	-	-	-	-
Bond Interest Accruals in excess of Payments	-	(4,697)	(4,070)	(275)	-	-	-	-
Total Other Requirements	25,197	104,453	95,700	2,816	13,572	5,400	8,990	-
Balance - Plus (Minus) Cash	(24,526)	(102,728)	(94,304)	(928)	(5,837)	427	(3,942)	7,950
Add:								
Outside Funds - First Mortgage Bonds - Public	-	45,000	99,000	-	-	-	-	-
- Subordinated Debentures	-	60,000	-	-	-	-	-	-
- First Mortgage Bonds - Crown Corporation	38,000	(38,000)	-	-	-	-	-	-
- Common Stock (2)	-	30,000	-	-	-	-	-	-
(Financing Charges) - First Mortgage Bonds - Public	-	(400)	(463)	-	-	-	-	-
- Subordinated Debentures	-	(2,758)	-	-	-	-	-	-
- Common Stock	-	(1,379)	-	-	-	-	-	-
Prepaid Interest on Subordinated Debentures	-	(6,600)	-	-	-	-	-	-
Total Outside Funds	38,000	85,863	98,537	-	-	-	-	-
Balance - Plus (Minus) Cash	13,474	(16,865)	4,233	(928)	(5,837)	427	(3,942)	7,950
Cash - Beginning of Period (3)	6,710	20,184	3,319	7,542	6,614	777	1,204	(2,738)
- End of Period (3)	20,184	3,319	7,542	6,614	777	1,204	(2,738)	5,212

(1) From June 7 through October 31, 1956

(2) 1,928,183 shares from Founders @ $8 approx. equals $15,411,456
3,000,000 shares with Subord. Debs. @ $10 equals 30,000,000
4,928,183 $45,411,456

(3) Includes Government Securities

Exhibit 8
Schedule 8
Plan 2

TRANS-CANADA PIPE LINES LIMITED

BALANCE SHEET PROJECTION - PLAN 2

($000's Omitted)

Balance Sheet Projection At:	6-7-56	10-31-56	10-31-57	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63
Assets									
Gross Plant - First of Year	$ -	$ -	$ 33,171	$140,321	$237,842	$240,933	$254,505	$259,905	$268,895
- Additions During Year	-	33,171	107,150	92,121	3,091	13,572	5,400	8,990	-
- Purchase of Niagara Line	-	-	-	5,400	-	-	-	-	-
- End of Year	-	33,171	140,321	237,842	240,933	254,505	259,905	268,895	268,895
Depreciation Reserve	58	58	58	2,047	10,375	18,994	27,945	37,148	46,508
Net Plant	(58)	33,113	140,263	235,795	230,558	235,511	231,960	231,747	222,387
Investments in Subsidiary Companies	156	156	156	156	156	156	156	156	156
Cash and Government Securities	6,710	20,184	3,319	7,542	6,614	777	1,204	(2,738)	5,212
Materials and Supplies (Operation and Maintenance)	-	-	2,000	4,000	4,000	4,000	4,000	4,000	4,000
Materials and Supplies (Gas for filling line)	-	-	-	249	249	249	249	249	249
Other Current Assets	25	25	25	25	25	25	25	25	25
Prepaid Interest on Subordinated Debentures	-	-	3,575	275	-	-	-	-	-
Unamortized Debt Discount and Expense - First Mortgage Bonds	-	-	400	822	781	740	699	658	617
Unamortized Debt Discount and Expense - Debentures	-	-	2,666	2,574	2,482	2,390	2,298	2,206	2,114
Common Capital Stock Expense	-	-	1,379	1,379	1,379	1,379	1,379	1,379	1,379
Miscellaneous Equipment and Structures	252	252	252	252	252	252	252	252	252
Preliminary Construction Costs & Other Deferred Debits	8,336	362	362	362	362	362	362	362	362
Total Assets	$15,421	$54,092	$154,397	$253,431	$246,858	$245,841	$242,584	$238,296	$236,753
Liabilities									
First Mortgage Bonds - Public	$ -	$ -	$ 45,000	$144,000	$144,000	$144,000	$140,820	$134,460	$128,100
Subordinated Debentures	-	-	60,000	60,000	60,000	60,000	60,000	60,000	60,000
First Mortgage Bonds - Crown Corporation	-	38,000	-	-	-	-	-	-	-
Common Stock (4,928,163 shares at 10/31/63)	1,928	1,928	4,928	4,928	4,928	4,928	4,928	4,928	4,928
Premium on Common Stock	13,483	13,483	40,483	40,483	40,483	40,483	40,483	40,483	40,483
Earned Surplus	-	671	2,304	1,578	(4,995)	(6,012)	(6,089)	(4,017)	800
Total Capitalization	15,411	54,082	152,715	250,989	244,416	243,399	240,142	235,854	234,311
Accrued Income Taxes Payable	-	-	-	-	-	-	-	-	-
Other Current Liabilities	10	10	1,682	2,442	2,442	2,442	2,442	2,442	2,442
Total Liabilities	$15,421	$54,092	$154,397	$253,431	$246,858	$245,841	$242,584	$238,296	$236,753
Capitalization Ratios									
First Mortgage Bonds				57.37%	58.91%	59.16%	58.64%	57.01%	54.67%
Subordinated Debentures				23.91	24.55	24.65	24.99	25.44	25.61
Common Equity				18.72	16.54	16.19	16.37	17.55	19.72
Total				100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Exhibit 9
Schedule 1
Plan 1 and
Plan 2

TRANS-CANADA PIPE LINES LIMITED
Estimated Construction Cost Details
Alberta-Saskatchewan Border To Winnipeg (586 Mi. - 34")
Main Line, Laterals and Miscellaneous

1.	Land and Land Rights	$ 713,761
2.	Main Line and Laterals	
3.	Line Pipe (excluding duty)	42,932,483
4.	Other Pipeline Materials	3,780,944
5.	Aerial Crossings	
6.	Measuring and Regulating Stations	160,000
7.	Communications Equipment	87,900
8.	Subtotal (3 thru 7)	46,961,327
9.	40% of Full Duty	2,033,063
10.	Full Sales Taxes	5,020,182
11.	Contingencies (5% of 8)	2,348,067
12.	Subtotal (1 and 8 thru 11)	57,076,400
13.	Pipline Installation	18,761,300
14.	Contingencies (5% of 13)	938,064
15.	Subtotal (13 and 14)	19,699,364
16.	Engineering and Supervision (5-1/2% of 8 and 13)	3,614,462
17.	Headquarters Facilities	136,000
18.	Maintenance Facilities and Equipment	682,000
19.	Subtotal (12, 15, 16, 17 and 18)	81,208,226
20.	Preliminary Construction Costs*	2,369,589
21.	Gas for Cleaning and Purging	10,475
22.	Stand-by Fee Re Sale of Bonds	756,000
23.	Total (19 thru 22)	$84,344,290

* Preliminary survey and engineering studies, and construction management contract advances.

Exhibit 9
Schedule 2
Plan 1 and
Plan 2

TRANS-CANADA PIPE LINES LIMITED
Estimated Construction Cost Details
Winnipeg To Manitoba-Ontario Border (85 Mi. - 30")
Main Line, Laterals and Miscellaneous

1.	Land and Land Rights	$ 47,005
2.	Main Line and Laterals	
3.	Line Pipe (excluding duty)	5,466,735
4.	Other Pipeline Materials	706,079
5.	Aerial Crossings	
6.	Measuring and Regulating Stations	
7.	Communications Equipment	12,750
8.	Subtotal (3 thru 7)	6,185,564
9.	40% of Full Duty	173,095
10.	Full Sales Taxes	493,270
11.	Contingencies (5% of 8)	309,278
12.	Subtotal (1 and 8 thru 11)	7,208,212
13.	Pipeline Installation	5,325,000
14.	Contingencies (5% of 13)	266,250
15.	Subtotal (13 and 14)	5,591,250
16.	Engineering and Supervision (5-1/2% of 8 and 13)	633,081
17.	Headquarters Facilities	20,000
18.	Maintenance Facilities and Equipment	99,000
19.	Subtotal (12, 15, 16, 17 and 18)	13,551,543
20.	Preliminary Construction Costs*	270,005
21.	Gas for Cleaning and Purging	1,410
22.	Stand-by Fee Re Sale of Bonds	110,000
23.	Total (19 thru 22)	$13,932,958

* Preliminary survey and engineering studies, and construction management contract advances.

Exhibit 9
Schedule 3
Plan 1 and
Plan 2

TRANS-CANADA PIPE LINES LIMITED
Estimated Construction Cost Details
Kapuskasing To Toronto Junction (491 Mi. - 30")
Main Line, Laterals And Miscellaneous

1.	Land and Land Rights	$ 236,708
2.	Main Line and Laterals	
3.	Line Pipe (excluding duty)	27,697,034
4.	Other Pipeline Materials	3,951,579
5.	Aerial Crossings	
6.	Measuring and Regulating Stations	800,000
7.	Communications Equipment	124,900
8.	Subtotal (3 thru 7)	32,573,513
9.	40% of Full Duty	1,005,137
10.	Full Sales Taxes	2,863,151
11.	Contingencies (5% of 8)	1,628,676
12.	Subtotal (1 and 8 thru 11)	38,307,185
13.	Pipeline Installation	30,920,000
14.	Contingencies (5% of 13)	1,546,000
15.	Subtotal (13 and 14)	32,466,000
16.	Engineering and Supervision (5-1/2% of 8 and 13)	3,492,145
17.	Headquarters Facilities	115,000
18.	Maintenance Facilities and Equipment	572,000
19.	Subtotal (12, 15, 16, 17 and 18)	74,952,330
20.	Preliminary Construction Costs*	1,556,502
21.	Gas for Cleaning and Purging	6,945
22.	Stand-by Fee Re Sale of Bonds	633,000
23.	Total (19 thru 22)	$77,148,777

* Preliminary survey and engineering studies, and construction management contract advances.

Exhibit 9
Schedule 4
Plan 1 and
Plan 2

TRANS-CANADA PIPE LINES LIMITED
Estimated Construction Cost Details
Toronto Junction To Sheridan (25 Mi. - 24")
Main Line, Laterals And Miscellaneous

1.	Land and Land Rights	$ 39,000
2.	Main Line and Laterals	
3.	Line Pipe (excluding duty)	862,994
4.	Other Pipeline Materials	162,046
5.	Aerial Crossings	
6.	Measuring and Regulating Stations	320,000
7.	Communications Equipment	3,750
8.	Subtotal (3 thru 7)	1,348,790
9.	40% of Full Duty	48,957
10.	Full Sales Taxes	111,344
11.	Contingencies (5% of 8)	67,440
12.	Subtotal (1 and 8 thru 11)	1,615,531
13.	Pipeline Installation	701,000
14.	Contingencies (5% of 13)	35,050
15.	Subtotal (13 and 14)	736,050
16.	Engineering and Supervision (5-1/2% of 8 and 13)	112,738
17.	Headquarters Facilities	
18.	Maintenance Facilities and Equipment	
19.	Subtotal (12, 15, 16, 17 and 18)	2,464,319
20.	Preliminary Construction Costs*	
21.	Gas for Cleaning and Purging	229
22.	Stand-by Fee Re Sale of Bonds	
23.	Total (19 thru 22)	$ 2,464,548

* Preliminary survey and engineering studies, and construction management contract advances.

Exhibit 9
Schedule 5
Plan 1 and
Plan 2

TRANS-CANADA PIPE LINES LIMITED
Estimated Construction Cost Details
Toronto Junction To Montreal (310 Mi. - 20")
Main Line, Laterals and Miscellaneous

1.	Land and Land Rights	$ 374,000
2.	Main Line and Laterals	
3.	Line Pipe (excluding duty)	8,920,012
4.	Other Pipeline Materials	1,328,374
5.	Aerial Crossings	
6.	Measuring and Regulating Stations	1,280,000
7.	Communications Equipment	46,500
8.	Subtotal (3 thru 7)	11,574,886
9.	40% of Full Duty	477,443
10.	Full Sales Taxes	1,048,116
11.	Contingencies (5% of 8)	578,744
12.	Subtotal (1 and 8 thru 11)	14,053,189
13.	Pipeline Installation	7,703,000
14.	Contingencies (5% of 13)	385,150
15.	Subtotal (13 and 14)	8,088,150
16.	Engineering and Supervision (5-1/2% of 8 and 13)	1,060,284
17.	Headquarters Facilities	72,000
18.	Maintenance Facilities and Equipment	361,000
19.	Subtotal (12, 15, 16 17 and 18)	23,634,623
20.	Preliminary Construction Costs*	1,523,381
21.	Gas for Cleaning and Purging	1,948
22.	Stand-by Fee Re Sale of Bonds	401,000
23.	Total (19 thru 22)	$25,560,952

* Preliminary survey and engineering studies, and construction management contract advances.

TRANS-CANADA PIPE LINES LIMITED
Estimated Construction Cost Details
Ottawa Lateral (40 Mi. - 12-3/4")
Main Line, Laterals and Miscellaneous

1.	Land and Land Rights	$ 45,000
2.	Main Line and Laterals	
3.	Line Pipe (excluding duty)	711,002
4.	Other Pipeline Materials	95,786
5.	Aerial Crossings	
6.	Measuring and Regulating Stations	70,000
7.	Communications Equipment	6,000
8.	Subtotal (3 thru 7)	882,788
9.	40% of Full Duty	37,546
10.	Full Sales Taxes	76,820
11.	Contingencies (5% of 8)	44,139
12.	Subtotal (1 and 8 thru 11)	1,086,293
13.	Pipeline Installation	762,000
14.	Contingencies (5% of 13)	38,100
15.	Subtotal (13 and 14)	800,100
16.	Engineering and Supervision (5-1/2% of 8 and 13)	90,463
17.	Headquarters Facilities	
18.	Maintenance Facilities and Equipment	
19.	Subtotal (12, 15, 16, 17 and 18)	1,976,856
20.	Preliminary Construction Costs*	110,071
21.	Gas for Cleaning and Purging	115
22.	Stand-by Fee Re Sale of Bonds	
23.	Total (19 thru 22)	$2,087,042

* Preliminary survey and engineering studies, and construction management contract advances.

TRANS-CANADA PIPE LINES LIMITED
Estimated Construction Cost Details
Emerson Lateral Line
Main Line, Laterals And Miscellaneous

1.	Land and Land Rights	$ 41,600
2.	Main Line and Laterals	
3.	Line Pipe (excluding duty)	1,706,400
4.	Other Pipeline Materials	172,700
5.	Aerial Crossings	-
6.	Measuring and Regulating Stations	90,000
7.	Communications Equipment	7,200
8.	Subtotal (3 thru 7)	1,976,300
9.	40% of Full Duty	87,200
10.	Full Sales Taxes	207,200
11.	Contingencies (5% of 8)	98,500
12.	Subtotal (1 and 8 thru 11)	2,410,800
13.	Pipeline Installation	1,064,000
14.	Contingencies (5% of 13)	53,200
15.	Subtotal (13 and 14)	1,117,200
16.	Engineering and Supervision (5-1/2% of 8 and 13)	166,800
17.	Headquarters Facilities	-
18.	Maintenance Facilities and Equipment	-
19.	Subtotal (12, 15, 16, 17 and 18)	3,694,800
20.	Preliminary Construction Costs*	151,205
21.	Gas for Cleaning and Purging	443
22.	Stand-by Fee Re Sale of Bonds	-
23.	Total (19 thru 22)	$3,846,448

* Preliminary survey and engineering studies, and construction management contract advances.

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST DETAILS - COMPRESSOR STATIONS ($000')

ESTIMATED SCHEDULE OF CONSTRUCTION

PLAN 1 AND PLAN 2

Station No.	Type Of Compressors	1957			1958			1959			1960			1961			1962		
		U	HP	Cost	U	HP	Cost	U	HP	Cost	U	HP	Cost	U	HP	Cost	U	HP	Cost
1	Reciprocating				1	2,500N	949				1	2,500E	889				1	2,500E	889
2	Centrifugal	1	7,600N	3,607							1	7,600E	2,700						
4	Centrifugal										1	7,600N	3,607				1	7,600E	2,700
6	Centrifugal				1	7,600N	3,607							1	7,600E	2,700			
8	Centrifugal										1	7,600N	3,531				1	7,600E	2,639
10	Reciprocating	2	2,500N	2,169				1	2,500E	869				1	2,500E	869			
16	Reciprocating							2	2,500N	2,169	1	2,500E	869				1	2,500E	869
17	Reciprocating				2	2,500N	2,169							1	2,500E	869	1	2,500E	869
18	Reciprocating													2	2,500N	869	1	2,500E	869
19	Reciprocating										2	2,000N	1,743						
	Total Cost			5,776			6,725			3,038			13,339			5,307			8,835

	1957	1958	1959	1960	1961	1962
Total HP installed						
Centrifugal	7,600	7,600	-	22,800	7,600	15,200
Reciprocating	5,000	7,500	7,500	9,000	10,000	10,000
Total	12,600	15,100	7,500	31,800	17,600	25,200
Total accumulated		27,700	35,200	67,000	84,600	109,800

U - Number of units
HP - Horsepower installed, each unit
N - New station
E - Existing station

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST DETAILS - COMPRESSOR STATIONS ($000')

COST FOR NEW AND EXISTING STATIONS WITH 1 OR MORE UNITS

PLAN 1 AND PLAN 2

		2,500 HP Reciprocating Units				2 - 2,000 HP Reciprocating Units Installed in New Station	7,600 HP Centrifugal Unit	
		Installed in New Station			Installed in Existing Station		Installed in New Station	Installed in Existing Station
		1 Unit	2 Units	3 Units	1 Unit			
1.	Labor and Material	700	1,700	2,438	700	1,360	2,797	2,128
2.	40% of Full Duty	35	85	120	35	68	144	106
3.	Full Dominion Sales Tax	60	145	203	60	116	236	182
4.	Contingencies (5% of 80% of 1)	28	68	97	28	54	112	85
5.	Engineering and Supervision (6-1/2% of 1)	46	111	158	46	85	182	138
6.	Housing Equity	60	60	60	-	60	60	-
7.	Subtotal (1 thru 6)	929	2,169	3,076	869	1,743	3,531	2,639
8.	Saskatchewan Sales Tax (Where applicable - 3% Rate)	20	-	-	20	-	76	61
9.	Total (7 and 8)	949	2,169	3,076	889	1,743	3,607	2,700

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST SUMMARY OF CROWN CORPORATION SECTION OF PIPELINE

PLAN 1 AND PLAN 2

	Construction Year Ending October 31								
	1956	1957	1958	Subtotal Thru 1958 (See Note)	1959	1960	1961	1962	Total
Manitoba-Ontario Border to Kapuskasing		(310 Mi. - 30")	(365 Mi. - 30")						
Construction Costs - Direct									
Main Line	$ -	$55,377,054	$61,975,279	$117,352,333	$ -	$ -	$ -	$ -	$117,352,333
Preliminary survey and engineering studies and construction management contract advances	2,144,159	-	-	2,144,159	-	-	-	-	2,144,159
Cost of gas for cleaning and purging	-	4,367	5,141	9,508	-	-	-	-	9,508
Total Main Line	2,144,159	55,381,421	61,980,420	119,506,000	-	-	-	-	119,506,000
Compressor Stations and Housing	-	-	2,169,000	2,169,000	2,169,000	6,114,000	4,814,000	4,345,000	19,611,000
Total Direct Costs	$2,144,159	$55,381,421	$64,149,420	$121,675,000	$2,169,000	$6,114,000	$4,814,000	$4,345,000	$139,117,000
Interest during construction									
Main Line	$ 37,523	$ 559,633	$ -	$ 597,156	$ -	$ -	$ -	$ -	$ 597,156
Compressor Stations and Housing	-	-	18,979	18,979	18,979	53,497	42,122	38,019	171,596
Total Interest during construction	$ 37,523	$ 559,633	$ 18,979	$ 616,135	$ 18,979	$ 53,497	$ 42,122	$ 38,019	$ 768,752
Total Construction Costs									
Main Line	$2,181,682	$55,941,054	$61,980,420	$120,103,156	$ -	$ -	$ -	$ -	$120,103,156
Compressor Stations and Housing	-	-	2,187,979	2,187,979	2,187,979	6,167,497	4,856,122	4,383,019	19,782,596
Total Construction Costs	$2,181,682	$55,941,054	$64,168,399	$122,291,135	$2,187,979	$6,167,497	$4,856,122	$4,383,019	$139,885,752
Period of Construction		(5/1-10/31)	(5/1-10/31)	(5/1-10/31)	(5/1-10/31)	(5/1-10/31)	(5/1-10/31)	(5/1-10/31)	
Interest during construction @ 3-1/2% per annum based on average of direct construction costs during period of construction (1956 on Preliminary survey costs based on full 6 months - 1.75%)									
Main Line - Current Year - %	(1.75)	(.875)							
- Amount	$ 37,523	$ 484,587	$	$ 522,110	$ -	$ -	$ -	$ -	$ 522,110
Main Line - Prior Years - %		(3.5)							
- Amount		75,046		75,046					75,046
Compressor Stations and Housing - %			(.875)	(.875)	(.875)	(.875)	(.875)	(.875)	
- Amount			18,979	18,979	18,979	53,497	42,122	38,019	171,596
Total Interest During Construction	$ 37,523	$ 559,633	$ 18,979	$ 616,135	$ 18,979	$ 53,497	$ 42,122	$ 38,019	$ 768,752

Note: Represents the estimated total cost to complete the Crown Corporation Section of the pipeline and the compression equipment required to be installed on such section to permit the pipeline to operate at its initially designed capacity.

Exhibit 9
Schedule 10
Sheet 1 of 2
Plan 1 and
Plan 2

TRANS-CANADA PIPE LINES LIMITED
Estimated Construction Cost Details
Crown Corporation Section-Manitoba-Ontario Border to Kapuskasing (675 Mi. - 30")
Main Line, Laterals And Miscellaneous

1.	Land and Land Rights	$ 329,675
2.	Main Line and Laterals	
3.	Line Pipe (excluding duty)	40,515,156
4.	Other Pipeline Materials	12,547,479
5.	Aerial Crossings	1,250,000
6.	Measuring and Regulating Stations	1,100,000
7.	Communications Equipment	
8.	Subtotal (3 thru 7)	55,412,635
9.	40% of Full Duty	1,734,536
10.	Full Sales Taxes	4,615,716
11.	Contingencies (5% of 8)	2,770,626
12.	Subtotal (1 and 8 thru 11)	64,863,188
13.	Pipeline Installation	43,890,000
14.	Contingencies (5% of 13)	2,194,500
15.	Subtotal (13 and 14)	46,084,500
16.	Engineering and Supervision (5-1/2% of 8 and 13)	5,461,645
17.	Headquarters Facilities	157,000
18.	Maintenance Facilities and Equipment	786,000
19.	Subtotal (12, 15, 16, 17 and 18)	117,352,333
20.	Preliminary Construction Costs*	2,144,159
21.	Gas for Cleaning and Purging	9,508
22.	Stand-by Fee Re Sale of Bonds	
23.	Total (19 thru 22)	$119,506,000

* Preliminary survey and engineering studies, and construction management contract advances.

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED CONSTRUCTION COST DETAILS - COMPRESSOR STATIONS ($000')

CROWN CORPORATION SECTION - MANITOBA-ONTARIO BORDER TO KAPUSKASING

PLAN 1 AND PLAN 2

Station No.	Type Of Compressors	Estimated Schedule Of Construction 1958 U	1958 HP	1958 Cost	1959 U	1959 HP	1959 Cost	1960 U	1960 HP	1960 Cost	1961 U	1961 HP	1961 Cost	1962 U	1962 HP	1962 Cost
11	Reciprocating										3	2,500N	3,076	1	2,500E	869
12	Reciprocating				2	2,500N	2,169	1	2,500E	869				1	2,500E	869
13	Reciprocating							3	2,500N	3,076				1	2,500E	869
14	Reciprocating	2	2,500N	2,169							1	2,500E	869	1	2,500E	869
15	Reciprocating							2	2,500N	2,169	1	2,500E	869	1	2,500E	869
	Total Cost			2,169			2,169			6,114			4,814			4,345
	Total HP installed		5,000			5,000			15,000			12,500			12,500	
	Total HP accumulated					10,000			25,000			37,500			50,000	

U - Number of units
HP - Horsepower installed, each unit
N - New Station
E - Existing station

Cost For New And Existing Stations With 1 Or More Units
2,500 HP Reciprocating Units

		Installed in New Station 2 Units	Installed in New Station 3 Units	Installed in Existing Station 1 Unit
1.	Labor and Material	1,700	2,438	700
2.	40% of Full Duties	85	120	35
3.	Full Dominion Sales Tax	145	203	60
4.	Contingencies (5% of 80% of 1)	68	97	28
5.	Engineering and Supervision (6-1/2% of 1)	111	158	46
6.	Housing Equity	60	60	-
7.	Total (1 thru 6)	2,169	3,076	869

THIS AGREEMENT made the 21st day of November 1955.

BETWEEN: "CDH" "NET" "ADN" "CDH "NET" "ADN"

Her Majesty the Queen in right of Canada, (hereinafter called the "Government of Canada"), represented by the Minister of Trade and Commerce, (hereinafter called "the Minister"),

PARTY OF THE FIRST PART,

- and -

TRANS-CANADA PIPE LINES LIMITED, a body corporate with head office in the City of Calgary, Province of Alberta, duly incorporated by Act of Parliament, Chapter 92, Statutes of Canada 1951 (hereinafter called "Trans-Canada"),

PARTY OF THE SECOND PART.

WHEREAS Trans-Canada has been authorized by the Board of Transport Commissioners for Canada to construct an all-Canadian natural gas pipe line, currently estimated to cost approximately $375 million, from a point on the Alberta-Saskatchewan border eastward through the Provinces of Saskatchewan, Manitoba, Ontario and to the City of Montreal in the Province of Quebec, with connections to serve cities and communities within economic reach of the said pipe line;

AND WHEREAS the Government of Canada favours the construction of the said pipe line in the national interest and to that end is prepared to recommend to Parliament that a Crown Corporation of the Government of Canada be established and financed to construct a section (hereinafter

called "the Northern Ontario section") of the said all-Canadian pipe line commencing at the Ontario-Manitoba border and extending eastward through Northern Ontario to a point at or near the Town of Kapuskasing, Ontario and that the Northern Ontario section be leased to Trans-Canada for a period of 25 years and on the terms as hereinafter set forth;

AND WHEREAS Trans-Canada has carried on engineering studies, market surveys, contract negotiations, and has taken options to acquire right-of-way for the major portion of the Trans-Canada all-Canadian pipe line, and has constructed a 20-inch pipe line from the Niagara River to Sheridan in the vicinity of Toronto, Ontario;

AND WHEREAS Trans-Canada proposes to construct between October 1st, 1955 and November 1st, 1956 a 34-inch pipe line from a point on the Alberta-Saskatchewan border to the vicinity of Winnipeg, Manitoba, with a lateral line from the vicinity of Winnipeg to Emerson, Manitoba, and a 24-inch pipe line from Sheridan to Brooklin, Ontario, and a 20-inch line from Brooklin to Ste. Anne de Bellevue in the vicinity of Montreal, Quebec, with a lateral from Morrisburg to the vicinity of Ottawa, Ontario;

AND WHEREAS Trans-Canada proposes to construct between October 1st, 1955 and November 1st, 1957 a 30-inch pipe line from the vicinity of Winnipeg, Manitoba to the Manitoba-Ontario border, and from the vicinity of Kapuskasing, Ontario to Brooklin, Ontario;

AND WHEREAS Trans-Canada proposes to arrange for financing of all its costs and commitments in connection with the said program of construction prior to May 1st, 1956;

NOW THEREFORE THIS AGREEMENT WITNESSETH

1. Trans-Canada will diligently take steps to secure all necessary governmental permits, financing, materials and supplies for and, having obtained same, will carry out the aforesaid program of construction and particularly will cause to be constructed in conjunction with the construction of the said Northern Ontario section of the said all-Canadian pipe line the portions thereof from the vicinity of Winnipeg, Manitoba to the Manitoba-Ontario border, and from the vicinity of Kapuskasing, Ontario to Brooklin, Ontario, so that all portions of the said pipe line to be constructed by Trans-Canada will be ready for operation at the time of completion of the Northern Ontario section.

2. The Government of Canada will recommend to Parliament that a Crown Corporation of the Government of Canada be established and that funds be provided to such Crown Corporation to enable it in due course and in conjunction with the building of the said all-Canadian pipe line to acquire the necessary right-of-way and to construct thereon the Northern Ontario section of the said all-Canadian pipe line.

3. If evidence satisfactory to the Government of Canada is presented by Trans-Canada before May 1st, 1956 that it has arranged for financing of all the costs and commitments in connection with the said program of construction, the Government of Canada will cause the said Crown Corporation to acquire the said right-of-way and construct thereon a natural gas pipe line of the size and specifications laid down by order of the Board of Transport Commissioners for Canada under which Trans-Canada is authorized to construct the said all-Canadian pipe line. The said Northern Ontario section shall commence at the Ontario-Manitoba

border west of Kenora, Ontario, thence to Port Arthur and Fort William, Ontario, thence to or in the vicinity of Nipigon, Ontario, thence to the vicinity of Geraldton, Hearst and Kapuskasing in the Province of Ontario, being a distance of approximately 675 miles and costing a currently estimated total of $117,633,000. The said pipe line shall consist of 30-inch diameter pipe of 3/8-inch wall thickness and initially shall be equipped with pressure capacity capable of transmitting approximately 300 million cubic feet of gas per day and designed to have its capacity increased to 530 million cubic feet per day by installing additional compression facilities. The engineering and design of the facilities included in the said Northern Ontario section and the standards of construction and workmanship shall be in accordance with the design and construction standards specified by the engineering firm responsible to Trans-Canada for such matters for the whole all-Canadian pipe line.

4. In the carrying out of their respective undertakings hereunder, Trans-Canada and the said Crown Corporation shall co-operate in every respect to the end that (a) the said all-Canadian pipe line shall be completed as one integrated project on the most economical basis from the point of view both of costs of construction and operation, and (b) the construction of the Northern Ontario section and the installation of the facilities are properly carried out to meet the designs, plans and specifications thereof.

5. After completion of construction of the Northern Ontario section, the Crown Corporation will install and bear the cost of additional integral parts of the pipe line, including additional compression facilities, if required by increased gas demand east of the Manitoba-Ontario border, without, however,

being required to build any additional pipe line or looping of the Northern Ontario section or sales laterals therefrom.

6. The Crown Corporation will retain title to the Northern Ontario section and will enter into a lease thereof to Trans-Canada substantially on the following terms:

(a) The lease shall be for a period of 25 years from the completion of construction;

(b) The lessee will, during the term of the lease

(i) at its own cost and expense operate and maintain the Northern Ontario section so as to make the maximum practical use thereof having regard to gas demand east of the Manitoba-Ontario border;

(ii) pay local and municipal taxes and assessments;

(iii) pay to the Crown Corporation a monthly rental equal to the number of Mcf. of natural gas actually transmitted by the Northern Ontario section in the preceding month multiplied by the transportation cost per Mcf. as hereinafter provided. The said transportation cost shall be that amount per Mcf. which, if the line were operated for one year at 2/3 of initially designed capacity, would yield an amount in that year equal to 4-1/2 per cent of the capital cost to the Crown Corporation of the Northern Ontario

section as constructed at its initially designed capacity. In calculating the said capital cost, there shall be included, in addition to all costs of materials, supplies, right-of-way, installation or other costs incurred in the construction of the section, interest costs and all other expenses of the Crown Corporation during construction;

(iv) commencing in the fourth full calendar year of the term of the lease, and for each calendar year thereafter, pay to the Crown Corporation by way of additional rental the amount by which in such calendar year the revenues of Trans-Canada exceed its operation expenses, (including its costs of operating and maintaining the Northern Ontario section as required under the terms of this Agreement), interest on bonds, debentures and other outstanding debts and obligations, and depreciation at 3-1/2 per cent of the cost of its depreciable assets, such additional rental not to exceed in any event 1 per cent of the said capital cost of the Northern Ontario section and to be payable only to the extent necessary to bring the accumulated total of rental payments under sub-paragraphs (iii) and (iv) hereof to an amount equal to 7 per cent per annum of the total capital cost from time to time of the Northern Ontario section together

with interest accumulated at 3-1/2 per cent per annum compounded annually on the net deficiencies below 7 per cent per annum of any preceding period;

(v) make such repairs and replacements as may be required to maintain the Northern Ontario section in proper operating condition;

(vi) be responsible for any loss of or damage to any part of the Northern Ontario section and will carry insurance in favour of the Crown Corporation and itself in respect of such parts thereof as would be covered by insurance if it were the owner of the Northern Ontario section in such amounts as may be agreed upon between the parties;

(vii) be responsible for any loss of or damage to property of others, injury to persons or infringements of any rights arising from or occasioned by the operation of the Northern Ontario section and will indemnify and save harmless the Crown Corporation from any and all such claims.

(c) Such other terms as may be mutually agreed upon for the carrying out of the intent and purpose of this Agreement.

7. It is understood and agreed by the parties hereto that Trans-Canada shall purchase the Northern Ontario section from the Crown Corporation as soon

as it can arrange the necessary finances. Trans-Canada may elect to purchase the Northern Ontario section from the Crown Corporation at any time during the term of the lease by giving written notice to the Crown Corporation at least three months prior to the date when the sale is to be completed. The Crown Corporation will, following receipt of such notice, sell to Trans-Canada all facilities and assets comprised in the Northern Ontario section of pipe line as of such date at a price equal to the total capital cost of the Northern Ontario section as of the date of sale, minus all payments under subparagraphs (iii) and (iv) of paragraph (b) of section 6 hereof which are in excess of the amount necessary to give the Crown Corporation from the date of completion of construction an annual return of 3-1/2 per cent on its invested capital and outstanding capital obligations, presuming that the Crown Corporation has applied semi-annually to retirement of its invested capital and outstanding capital obligations all funds received by it in excess of said return.

8. Notwithstanding the provisions of section 7, Trans-Canada shall not be entitled hereunder to elect to purchase nor shall the Crown Corporation be obligated hereunder at any time to sell the assets and facilities comprised in the Northern Ontario section:

(a) before the Crown Corporation has received, from the date of completion of construction, an annual return of 3-1/2 per cent on its invested capital and outstanding capital obligations as hereinbefore set out; or

(b) at a price less than (1) the amortized capital cost of the Northern Ontario section which shall be determined

by applying, from the date of completion of construction, to the total capital cost from time to time amortization at the rate of 3-1/2 per cent per annum plus interest thereon compounded annually at 3-1/2 per cent per annum, or (2) 70 per cent of the capital cost of the Northern Ontario section at its initially designed capacity as defined in subparagraph (iii) of paragraph (b) of section 6, whichever is the higher amount.

9. For the purposes of sections 6, 7 and 8,

(a) if the date as of which the sale is to be completed does not coincide with any anniversary of the date of completion of construction, interest as expressed in the form of annual return, amortization and interest thereon shall, for the purpose of making the calculations for the lease year then current, be deemed to accrue from day to day; and

(b) the toal capital cost of the Northern Ontario section means

(i) the capital cost of the section as constructed at its initially designed capacity as defined in subparagraph (iii) of paragraph (b) of section 6, plus

(ii) the cost of additions thereto, such cost to include, in addition to all costs of materials, supplies, land, installation or other costs incurred in the construction of such additions, interest during

construction at 3-1/2 per cent per annum and all expenses of the Crown Corporation that are properly attributable to such construction.

10. This Agreement shall be binding upon and enure to the benefit of the successors and assigns of Trans-Canada, but no assignment of this Agreement or of any of the rights or obligations hereunder shall be made by Trans-Canada without first obtaining the written consent of the Minister, and in the event of any such consent being given, Trans-Canada shall not be relieved of any of its obligations hereunder; provided, however, that Trans-Canada, without such consent, shall have the right to mortgage, hypothecate, charge or pledge any or all of its rights hereunder to secure any indebtedness, and no such consent shall be required to permit any person holding such mortgage, hypothec, charge or pledge from enforcing such security under the terms of any trust deed or other instrument.

IN WITNESS WHEREOF the Minister of Trade and Commerce has hereunto set his hand and the seal of the Department of Trade and Commerce on behalf of Her Majesty the Queen in right of Canada and Trans-Canada Pipe Lines Limited has caused its seal to be hereto affixed and this Agreement to be signed by its proper officers in that behalf.

SIGNED AND SEALED ON BEHALF OF HER MAJESTY THE QUEEN IN RIGHT OF CANADA

/s/ C. D. Howe
MINISTER OF TRADE AND COMMERCE

(SEAL)

SIGNED AND SEALED ON BEHALF OF TRANS-CANADA PIPE LINES LIMITED

/s/ N. E. Tanner
President

/s/ A. D. Nesbitt
Secretary

(SEAL)

THIS AGREEMENT made the 26th day of April, 1956.

BETWEEN:

HER MAJESTY THE QUEEN IN RIGHT OF CANADA (hereinafter called the "Government of Canada"), represented by the Minister of Trade and Commerce,

PARTY OF THE FIRST PART

- and -

TRANS-CANADA PIPE LINES LIMITED, a body corporate with head office in the City of Calgary, Province of Alberta, duly incorporated by Act of Parliament, Chapter 92, Statutes of Canada 1951, (hereinafter called "Trans-Canada"),

PARTY OF THE SECOND PART

WHEREAS the Government of Canada and Trans-Canada entered into an Agreement, dated the 21st day of November, 1955, setting forth the proposed undertakings by each with respect to an all-Canadian natural gas pipe line as more particularly described in the said Agreement;

AND WHEREAS the said Agreement prescribes May 1st, 1956, as the date before which Trans-Canada shall present evidence satisfactory to the Government of Canada that Trans-Canada has arranged for financing of all the costs and commitments in connection with its program of construction of the said pipe line;

AND WHEREAS Trans-Canada will not, prior to May 1st, 1956, be able to arrange for the said financing but now proposes to arrange therefor prior to November 1st, 1956;

AND WHEREAS the Board of Transport Commissioners for Canada and the Petroleum and Natural Gas Conservation Board of Alberta have, respectively, extended to November 1st, 1956, the period within which Trans-Canada shall satisfy each Board that arrangements for financing the said pipe line have been completed;

AND WHEREAS it is desirable that the said Agreement, dated the 21st day of November, 1955, be amended to provide for an extension similar in duration to the extension granted by the Board of Transport Commissioners for Canada and the Petroleum and Natural Gas Conservation Board of Alberta;

NOW THEREFORE THIS AGREEMENT WITNESSETH:

That the Agreement between the Government of Canada and Trans-Canada, dated the 21st day of November, 1955, is amended by substituting the date "November 1st, 1956" for the date "May 1st, 1956" in Clause 3 of the said Agreement.

IN WITNESS WHEREOF the Minister of Trade and Commerce has hereunto set his hand and the seal of the Department of Trade and Commerce on behalf of Her Majesty the Queen in right of Canada and Trans-Canada Pipe Lines Limited has caused its seal to be hereto affixed and this Agreement to be signed by its proper officers in that behalf.

SIGNED AND SEALED ON BEHALF
OF HER MAJESTY THE QUEEN IN
RIGHT OF CANADA
Seal

"C. D. Howe"
MINISTER OF TRADE AND COMMERCE

SIGNED AND SEALED ON BEHALF OF
TRANS-CANADA PIPE LINES LIMITED

"N. E. Tanner"
PRESIDENT
C/S
"J. Ross Tolmie"
DIRECTOR

THIS AGREEMENT made the 8th day of May, 1956.

BETWEEN

Her Majesty the Queen in right of Canada (hereinafter called the "Government of Canada"), represented by the Minister of Trade and Commerce,

PARTY OF THE FIRST PART

- and -

TRANS-CANADA PIPE LINES LIMITED, a body corporate with head office in the City of Calgary, Province of Alberta, duly incorporated by Act of Parliament, Chapter 92, Statutes of Canada 1951 (hereinafter called "Trans-Canada"),

PARTY OF THE SECOND PART.

WHEREAS the Government of Canada and Trans-Canada entered into an agreement dated the 21st day of November, 1955, as amended the 26th day of April, 1956, setting forth the proposed undertakings by each with respect to an all-Canadian natural gas pipe line, as more particularly described in the said agreement;

AND WHEREAS, although it has not yet been able to arrange for financing of its complete construction programme, Trans-Canada has, in addition to options to acquire rights-of-way for the major portion of the all-Canadian pipe line, an option to purchase 34-inch diameter pipe sufficient to build the Western Section of the all-Canadian pipe line, which pipe is scheduled for delivery in 1956;

AND WHEREAS it is in the public interest that the Western Section of the all-Canadian pipe line should be constructed in 1956 and the Government of Canada should for this purpose make a temporary loan to Trans-Canada;

NOW THEREFORE THIS AGREEMENT WITNESSETH

1. Trans-Canada undertakes, subject to securing the necessary leave from the Board of Transport Commissioners for Canada and provided that it receives written notice delivered to Messrs. Herridge, Tolmie, Gray, Coyne & Blair, Solicitors for Trans-Canada, at their offices at 77 Metcalfe Street, Ottawa, Ontario, on or before June 7, 1956 that the loans hereinafter referred to have been authorized, and can be made as hereinafter provided, to construct a 34-inch diameter natural gas pipe line from a point at or near the Alberta-Saskatchewan border to or in the vicinity of Winnipeg, more particularly described in section 3, (hereinafter called "the Western Section") being part of the all-Canadian natural gas pipe line and to complete the Western Section on or before December 31, 1956.

2. The Government of Canada will recommend to Parliament that loans be authorized to be made to Trans-Canada in an amount up to 90 per cent of the cost of the Western Section, secured by a first mortgage, pledge or charge or floating charge on all the assets, rights and undertakings both present and future acquired, of Trans-Canada.

3. The Western Section shall be a natural gas pipe line commencing at or near the Alberta-Saskatchewan border at a point easterly from Princess, Alberta, thence to or in the vicinity of Regina, Saskatchewan, and thence to or in the vicinity of Winnipeg, Manitoba, and all integral parts, works and facilities of and all property, both real and personal, connected with the said natural gas pipe line, but not including any natural gas pipe line extending

from the said pipe line to the United States border or to any other pipe line which extends to that border. The said pipe line shall be approximately 575 miles in length and shall consist of 34-inch diameter pipe of 3/8-inch wall thickness and shall be designed to have an ultimate capacity of approximately 720 million cubic feet per day by installing compression facilities.

4. As security for the said loans, Trans-Canada undertakes to mortgage, charge or pledge to Northern Ontario Pipe Line Crown Corporation (hereinafter called "the Crown Company") as agent for the Government of Canada, by way of a first fixed and specific mortgage, charge or pledge, all its present and future real property and interests therein, machinery, equipment and other such assets, pipe wheresoever situate and all its shares in any subsidiary company, and by way of a first floating charge, all its other assets and rights, present and future, not specifically mortgaged, charged or pledged and its undertakings pursuant to an Indenture of Mortgage, (hereinafter called "the Indenture") in such form and to contain such terms and conditions as may be satisfactory to the Crown Company.

5. The Indenture shall provide, inter alia, that, in the event of default thereunder by Trans-Canada and upon the giving of notice thereof by the Crown Company to Trans-Canada, the Crown Company shall, in addition to such other powers as may be necessary to deal with the assets, rights and undertakings of Trans-Canada, have power to take immediate possession and control of any or all such assets, rights and undertakings and to conduct the business and operations of Trans-Canada with respect thereto. Such notice of default shall be given to Trans-Canada as may be specified in the Indenture but the

Indenture shall not specify a period for giving such notice that is in excess of ninety days from the date upon which the Crown Company becomes aware of such default.

6. Trans-Canada shall be in default hereunder, subject to any delay as may be occasioned by force majeure (defined to mean acts of God, strikes, lockouts or other labour or industrial disturbances, civil disturbances, arrests and restraints from rulers and people, interruptions by government or court orders, future valid orders of any regulatory body having jurisdiction, acts of the public enemy, wars, riots, sabotage, blockades, embargoes, insurrections, failure or inability to secure materials or labour by reason of priority or similar regulations or orders of the government, epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts or explosions, provided that such event shall be beyond the reasonable control of the party concerned and not due to its fault or negligence, but not to include any orders, rulings or actions, or absence thereof, by the Federal Power Commission of the United States of America, the Board of Transport Commissioners for Canada or the Petroleum and Natural Gas Conservation Board of Alberta or tribunals having similar jurisdiction) if it fails:

   (a) to repay on or before April 2, 1957, the amounts to be repaid by it as described in section 10 of this agreement;

   (b) to carry out, with due diligence, the construction of the Western Section;

   (c) to complete the Western Section within the time specified in this agreement; or

(d) to carry out any other obligation specified in this agreement.

7. Funds for the construction of the Western Section shall be provided as follows:

(a) Trans-Canada shall, before any loan is made to it by the Crown Company, expend $7,500,000 (less such amounts already expended by it which the Crown Company may agree are properly attributable to the construction of the Western Section) with respect to such construction;

(b) The next $67,500,000, to the extent required, shall be loaned by the Crown Company to Trans-Canada as hereinafter provided;

(c) 90 per cent of the balance of the cost of construction shall be loaned by the Crown Company to Trans-Canada as hereinafter provided until the total of all loans by the Crown Company pursuant to this section equals $80,000,000 and all additional funds required to complete construction of the Western Section shall be provided by Trans-Canada.

8. Such loans shall be made by the Crown Company acting as agent of the Government of Canada to Trans-Canada from time to time as construction of the Western Section proceeds. Such loans are to be made on the basis of estimates of expenditures for the periods covered thereby as certified by Trans-Canada and approved by the Crown Company. Each such loan shall be

evidenced by a bond issued pursuant to and secured by the Indenture and shall bear interest at the rate of 5 per cent per annum from the date of such bond until repayment.

9. The costs and expenses paid by the Crown Company in connection with the loans or any portion thereof and, without limiting the generality of the foregoing, including that portion of general overhead attributable under normal cost accounting procedures to the Crown Company's activities in regard to such loans, shall be paid by Trans-Canada.

10. Trans-Canada undertakes to pay to the Crown Company on or before April 2, 1957, an amount equal to the aggregate of all loans made to it by the Crown Company, plus the interest thereon as provided for in section 8 and the costs and expenses provided for in section 9. When Trans-Canada is not in default under this agreement, Trans-Canada shall have the right to pay the said amounts at any time before April 2, 1957 without penalty, premium or additional interest. Trans-Canada shall, upon paying all the said amounts on or before April 2, 1957, be released from all liability under this agreement and shall be released forthwith from the Indenture.

11. Except with the specific written consent of the Crown Company Trans-Canada undertakes and agrees that until the amounts provided for in section 10 have been paid by Trans-Canada to the Crown Company, it will not create any other mortgage, pledge or charge on, or in any other way otherwise encumber any of its assets, rights or undertakings, present and future.

12. Pursuant to the provisions of the statute in such case made and provided,

no member of the House of Commons of Canada shall be admitted to any share or part of this agreement or to any benefit to arise therefrom.

13. It is a condition of the making of any loans hereunder that the Crown Company be provided with a favourable opinion or opinions, upon such matters relating to such loans as are required by the Crown Company,

(a) by the solicitors for Trans-Canada and

(b) by the solicitors for the Crown Company who may in giving their opinion or opinions rely on the opinion or opinions of the solicitors for Trans-Canada.

14. Trans-Canada represents, warrants and covenants that

(a) it shall upon the execution and delivery of this agreement use its best efforts to obtain as soon as possible all necessary permits and licences and orders or amendments or renewals thereof from all authorities and persons including the Board of Transport Commissioners for Canada and the Petroleum and Natural Gas Conservation Board of Alberta to enable it to proceed with the construction of the Western Section;

(b) it has options to purchase substantially all the pipe required for the Western Section and it shall exercise such options and do all other things necessary to acquire sufficient materials, equipment and machinery to construct the Western Section;

(c) it has options to purchase or otherwise acquire easements and rights-of-way for substantially all the said pipe line and it will exercise all such options and do all other things necessary to enable it to construct the Western Section;

(d) it has entered into purchase contracts for substantially all the natural gas which it is permitted to export from the Province of Alberta and has obtained and is obtaining contracts for the sale of natural gas and that it will use its best efforts to preserve, renew or extend such contracts;

(e) there are no proceedings pending, or so far as the officers of Trans-Canada know or by the exercise of reasonable diligence would have been able to ascertain, against Trans-Canada at law or in equity, or by or before any governmental department, commission, board, agency or instrumentality which will substantially adversely affect its ability to perform its obligations hereunder and that Trans-Canada is not in default in respect of any order of any court or any governmental department, commission, board, agency or instrumentality; and

(f) the execution and delivery of this agreement is, and the execution and delivery of the bonds and Indenture herein provided for will be, within its corporate authority, duly

authorized by proper corporate proceedings, and not in conflict with any provision of law, its incorporating act, by-laws or any rule, order or regulation of any public authority having jurisdiction over Trans-Canada.

15. If Trans-Canada is not in default under this agreement or the Indenture, the Government of Canada undertakes to support the application of Trans-Canada to the Board of Transport Commissioners for Canada for an extension beyond November 1, 1956, of the permission set forth in the Board's Order No. 84220.

16. Neither this agreement, nor any right or benefit thereunder, are assignable by Trans-Canada, except with the consent of the Government of Canada.

17. Nothing contained in this agreement shall affect the operation of the agreement dated 21st November, 1955, as amended on 26th April, 1956, between the Government of Canada and Trans-Canada relating to the Northern Ontario Section of the all-Canadian natural gas pipe line or the rights or obligations of the parties thereunder.

IN WITNESS WHEREOF the Minister of Trade and Commerce has hereunto set his hand and the seal of the Department of Trade and Commerce on behalf of Her Majesty the Queen in right of Canada and Trans-Canada Pipe Lines Limited has

caused its seal to be hereto affixed and this agreement to be signed by its proper officers in that behalf.

SIGNED AND SEALED ON BEHALF OF
HER MAJESTY THE QUEEN IN RIGHT
OF CANADA

C/S

"C. D. Howe"

MINISTER OF TRADE AND COMMERCE

SIGNED AND SEALED ON BEHALF OF
TRANS-CANADA PIPE LINES LIMITED

"N. E. Tanner"

PRESIDENT

C/S

"A. D. Nesbitt"

SECRETARY

ORDER NO. 84220

THE BOARD OF TRANSPORT COMMISSIONERS FOR CANADA

In the matter of the application of Trans-Canada Pipe Lines Limited and Western Pipe Lines, hereinafter called the "Applicants", under sections 10A, 11 and 12 and other relevant sections of the Pipe Lines Act, for an Order granting leave to the Applicants to construct a pipe line, consisting of one or more lines of pipe, for the transportation of gas from a point on the Alberta-Saskatchewan border, east of the town of Princess in the Province of Alberta, through or in the vicinity of the cities of Moose Jaw and Regina in the Province of Saskatchewan, through or in the vicinity of the cities of Brandon, Portage la Prairie and Winnipeg in the Province of Manitoba, through or in the vicinity of the towns or cities of Kenora, Port Arthur, Fort William, Nipigon, Schrieber, Marathon, Hawk Junction, Chapleau, Sudbury, North Bay, Huntsville, Gravenhurst, Toronto, Oshawa, Port Hope, Trenton, Belleville, Kingston, Brockville, Morrisburg and Cornwall in the Province of Ontario, thence to the towns of Dorion and Ste. Anne de Bellevue and the City of Montreal, in the Province of Quebec including

(a) a branch line from the City of Winnipeg south to the town of Emerson in the Province of Manitoba on the border between the United States of America and Canada, and

(b) a branch line from the town of Brooklin to the City of Oakville in the Province of Ontario, and

(c) a branch line from the town of Morrisburg to the City of Ottawa in the Province of Ontario and the City of Hull, in the Province of Quebec:

File No. 45371-20-2

SATURDAY, the 24th day of July, A.D. 1954.

Hon. Mr. Justice JOHN D. KEARNEY, Chief Commissioner.

HUGH WARDROPE, Asst. Chief Commissioner.

A. SYLVESTRE, Q.C., Deputy Chief Commissioner.

O. A. MATTHEWS, Commissioner.

Upon hearing the application at a sitting of the Board held in Ottawa on the 15th, 16th and 17th days of June, 1954, in the presence of Counsel and representatives of Trans-Canada Pipe Lines Limited, Western Pipe Lines, the Government of the Province of Saskatchewan, the Bell Telephone Company of Canada, the City of Montreal, the Montreal Metropolitan Commission, the Province of Alberta, the Algoma Central and Hudson Bay Railway Company, Northern Ontario Municipalities, the City of Port Arthur, the City of Fort William and the Corporation of the Toronto Metropolitan Commission and others -

It is ordered that, subject to Trans-Canada Pipe Lines Limited satisfying the Board prior to December 31, 1954, that satisfactory arrangements have been completed for financing the construction of its proposed pipe line and that any licences which may be necessary under the Electricity and Fluid Exportation Act have been or will be granted, leave be, and it is hereby granted to Trans-Canada Pipe Lines Limited to construct a pipe line consisting of one or more lines of pipe for the transportation of gas from a point on the Alberta-Saskatchewan

border, east of the town of Princess in the Province of Alberta, through or in the vicinity of the cities of Moose Jaw and Regina in the Province of Saskatchewan, through or in the vicinity of the cities of Brandon, Portage la Prairie and Winnipeg in the Province of Manitoba, through or in the vicinity of the towns or cities of Kenora, Port Arthur, Fort William, Nipigon, Schreiber, Marathon, Hawk Junction, Chapleau, Sudbury, North Bay, Huntsville, Gravenhurst, Toronto, Oshawa, Port Hope, Trenton, Belleville, Kingston, Brockville, Morrisburg and Cornwall in the Province of Ontario, thence to the towns of Dorion and Ste. Anne de Bellevue and the City of Montreal, in the Province of Quebec, including

(a) a branch line from the City of Winnipeg south to the town of Emerson in the Province of Manitoba on the border between the United States of America and Canada, and

(b) a branch line from the town of Brooklin to the City of Oakville in the Province of Ontario, and

(c) a branch line from the town of Morrisburg to the City of Ottawa in the Province of Ontario and the City of Hull, in the Province of Quebec;

the general location of the pipe line being as shown on the map dated September, 1951, filed with the Board under file No. 45371-20-2; the said pipe line to be constructed and completed on or before the 31st day of December, 1957, unless upon application by Trans-Canada Pipe Lines Limited the aforesaid dates for satisfying the Board with regard to the arrangements for financing the construction or for completion of the line are extended by the Board.

JOHN D. KEARNEY,

Chief Commissioner,
The Board of Transport Commissioners
for Canada.

ORDER NO. 86796

THE BOARD OF TRANSPORT COMMISSIONERS FOR CANADA

THURSDAY, THE 18TH DAY OF AUGUST, A.D. 1955

HON. MR. JUSTICE JOHN D. KEARNEY,
Chief Commissioner.
F. M. MACPHERSON,
Commissioner.
O. A. MATTHEWS,
Commissioner.

IN THE MATTER OF the application dated February 22nd, 1955, of Trans-Canada Pipe Lines Limited, under Section 20 and other relevant sections of the Pipe Lines Act, for an Order granting leave to the applicant to deviate, change and extend the general location of its proposed pipe line described in Order No. 84220, dated July 24th, 1954:

File No. 45371.20.2

UPON hearing the application at a sittings of the Board held in Ottawa on the 10th day of March, 1955, in the presence of Counsel for and representatives of Trans-Canada Pipe Lines Limited, Hydro Electric Power Commission of Ontario, interested Municipalities in Northern Ontario, Ontario Northland Transportation Commission, the City of Ottawa, Labour Progressive Party, Canadian Coal Dock Operators' Association, and others, and for reasons which will be given in writing at a later date --

IT IS ORDERED that, subject to the provisions of Order No. 86088, leave be, and it is hereby, granted to Trans-Canada Pipe Lines Limited, to:

1. Change or deviate the route of its proposed pipe line as set out in Order No. 84220, dated the 24th July, 1954, between Nipigon and North Bay, Ontario, to the following extent:

   Generally following the Canadian National Railways' line of railway north from Nipigon past Cameron

Falls, Orient Bay, Beardmore, Jellicoe and Hearst, thence following generally the railway and the highway past Kapuskasing, Smooth Rock Falls, Cochrane, Matheson Station, Englehart, New Liskeard, Cobalt, Latchford and Timagami to intersect the original route at North Bay.

2. Change or deviate the route in the manner set out in the application, as follows:

   (a) The new point of beginning is about five and one quarter miles north along the Alberta-Saskatchewan border from the original point of beginning and the route now planned gradually approaches the original route, intersecting it at a point about one and one half miles north of the Town of Pennant, Saskatchewan, and thence generally coincides with the original route to

   (b) A point about a mile north of Vibane Saskatchewan, whence the route now planned deviates to the north of the original route and passes just north of Deveron and just south of Wapella, Saskatchewan, thence north of Miniota, Varcoe and Austin and intersects the original line about six and three quarters miles due south and two miles east of Oakville, Manitoba, and then deviates to the south of the original route passing

(c) South of Oak Bluff and St. Norbert and swings north of St. Anne, McMunn and Glenn to intersect the original route just west of the border between Manitoba and Ontario and thence generally coincides with the original route

(d) Coincides generally with the original route past Huntsville, Falkenberg and Ravenhurst to Washago whence the planned route deviates to the southwest past Allendale and Barrie, and south to

(e) Pine Grove, where the route continues eastward to intersect with the original route at Brooklin, whence it generally coincides with the original route eastward to Montreal.

(f) The route of the Emerson Lateral deviates from the original in that it begins near Fort Whyte some seventeen miles west of the original point of beginning and follows generally the railway and highway past Morris to a point on the Canada-U.S. Border just west of the town of Emerson, Manitoba.

(g) The original lateral from Brooklin west and south to Oakville is not now necessary since the planned main line route runs between Brooklin and Pine Grove and a planned lateral runs south from Pine Grove to Sheridan, near Oakville.

3. Construct a branch line starting near the junction of Ontario provincial highways numbers 11 and 64 near Marten River, and generally following highway No. 64 in a southwesterly direction to its intersection with highway No. 17 and thence westward following generally highway No. 17 to Sudbury and Copper Cliff, with a proposed branch line from the junction of highways Nos. 64 and 17 near Verner eastward to the city of Sturgeon Falls.

4. Effect an increase of approximately one hundred and thirty-nine miles in the total length of the entire pipe line.

5. Change the diameters of certain sections of the pipe line, as follows:

   (a) Alberta border to Winnipeg, from 36" to 34".

   (b) Pine Grove, Ontario to Sheridan, from 18" to 24".

   (c) Morrisburg to Ottawa-Hull, from 14" to 16".

   (d) Marten River to Sudbury, from 30" to 10".

   (e) Verner to Sturgeon Falls, from 30" to 4".

the general location of the pipe line being as shown on the map revised to February 22, 1955, on file with the Board.

(S'G"D) JOHN D. KEARNEY,
Chief Commissioner,
The Board of Transport Commissioners for Canada.

BOARD OF TRANSPORT COMMISSIONERS FOR CANADA
Examined and certified as a true copy under
Section 23 of "The Railway Act."
"C. W. Rump"
-~~(E. R. HOPKINS)~~-
Acting Secretary, Board of Transport
Commissioners for Canada,
OTTAWA, August 19, 1955.

BOARD OF TRANSPORT COMMISSIONERS FOR CANADA

COMMISSION DES TRANSPORTS DU CANADA

ORDER NO. 88462

TUESDAY, THE 28TH DAY OF MARCH, A. D. 1956

HON. MR. JUSTICE JOHN D. KEARNEY,
Chief Commissioner.
HUGH WARDROPE,
Asst. Chief Commissioner.
F. M. MACPHERSON,
Commissioner.
L. J. KNOWLES,
Commissioner.

IN THE MATTER OF the application of Trans-Canada Pipe Lines Limited for an extension until November 1, 1956, of the period fixed in Order No. 84220, as subsequently extended to April 30, 1956, for satisfying the Board in respect of financing and licenses of its proposed company pipe line for which leave to construct was granted by the said Order No. 84220:

File No. 45371.20.2

UPON hearing the application at sittings of the Board at Ottawa on March 27 and 28, 1956, in the presence of Counsel and representatives of the applicant and the Government of Alberta, the Abbott Estate, the Winnipeg and Central Gas Company, the Labour-Progressive Party and the Department of Trade and Commerce, and pursuant to oral judgment given at the said sittings--

IT IS ORDERED that the period fixed in the said Order No. 84220, as subsequently extended to April 30, 1956, for satisfying the Board that satisfactory arrangements have been completed for financing the construction of the said proposed pipe line and that any license which may be necessary to permit export of gas from Canada at a point on the international boundary at or near Emerson, Manitoba, to an unspecified purchaser in the United States, be and it is hereby extended to November 1, 1956.

AND IT IS DECLARED by way of clarification that the said Order No. 84220, in granting permission to Trans-Canada Pipe Lines Limited to construct a 24-inch branch line from Winnipeg to Emerson, Manitoba, for the purpose of transmitting gas to a point on the United States boundary for sale to a purchaser in the United States, made no reference to a specified purchaser in the United States, and there was no condition in the said Order, or in the judgment of the Board dated July 24, 1954, in the same matter, with regard to the identity of the purchaser in the United States or the quantity of gas to be purchased.

(SGD) JOHN D. KEARNEY,

Chief Commissioner,
The Board of Transport Commissioners for Canada

BOARD OF TRANSPORT COMMISSIONERS
FOR CANADA
Examined and certified as a true copy
under Section 23 of "The Railway Act".

(C. W. RUMP)
Secretary, Board of Transport Commissioners
for Canada, OTTAWA, March 28th, 1956.

BOARD OF TRANSPORT COMMISSIONERS FOR CANADA

COMMISSION DES TRANSPORTS DU CANADA

ORDER NO. 88874

FRIDAY, THE 25TH DAY OF MAY, A. D. 1956

HON. MR. JUSTICE JOHN D. KEARNEY,
Chief Commissioner.
HUGH WARDROPE,
Asst. Chief Commissioner.
A. SYLVESTRE, Q. C.,
Deputy Chief Commissioner.

IN THE MATTER OF the application, dated May 10, 1956, of Trans-Canada Pipe Lines Limited, hereinafter called the "Applicant", for leave to construct a natural gas pipe line from a point on the Alberta-Saskatchewan border east of the Town of Princess to Winnipeg, Manitoba, being a portion of the Applicant's proposed company pipe line from Alberta to Montreal:

File No. 45371.20.2

WHEREAS by Order No. 84220, dated July 24, 1954, and Order No. 86796, dated August 18, 1955, leave was granted to the Applicant to construct its proposed pipe line from a point on the Alberta-Saskatchewan border to Montreal and other places, as more fully set forth in the said Orders;

AND WHEREAS the leave so granted was conditional upon the Applicant satisfying the Board "that satisfactory arrangements have been completed for financing the construction of its proposed pipe line and that any licenses which may be necessary under the Electricity and Fluid Exportation Act have been or will be granted";

AND WHEREAS the period fixed by the Board for so satisfying it in respect of financing and licenses was subsequently extended to November 1, 1956, by Order No. 88462, dated March 28, 1956;

AND WHEREAS by Order No. 86988, dated September 21, 1955, the Applicant was granted leave as set forth therein to construct on or before December 31, 1956, a portion of its said entire proposed pipe line, namely, the portion from Sheridan, Ontario, to a point near Ste. Anne de Bellevue, Quebec, including a branch line from the Town or Morrisburg to the City of Ottawa, without first satisfying the Board in respect of the financing and licenses above mentioned;

NOW upon hearing the application at a sitting of the Board in Ottawa on May 24, 1956, in the presence of Counsel for the Applicant and for the Province of Alberta and a representative of the Labour-Progressive Party and upon judgment given at the said sitting --

IT IS ORDERED

1. That, notwithstanding the said Orders No. 84220 and No. 86796, leave be and it is hereby granted to the Applicant to construct a portion of its said proposed entire pipe line, namely, the portion from a point on the Alberta-Saskatchewan border, east of the Town of Princess in the Province of Alberta, through or in the vicinity of the Cities of Moose Jaw and Regina in the Province of Saskatchewan, through or in the vicinity of the Cities of Brandon and Portage la Prairie and thence to the City of Winnipeg in the Province of Manitoba, without first satisfying the Board that satisfactory arrangements have been completed for financing the construction of the said entire proposed pipe line and that any licenses which may be necessary under the Exportation of Power and Fluids and Importation of Gas Act in respect of the entire line have been or will be granted.

2. That construction of the said portion in respect of which leave to construct is hereby granted be completed on or before December 31, 1956.

3. That this Order shall cease to have force at midnight on June 15, 1956, unless prior thereto Bill 298, An Act to establish the Northern Ontario Pipe Line Crown Corporation, introduced in the House of Commons of Canada during its current session, is passed.

(SGD) JOHN D. KEARNEY,

Chief Commissioner,

The Board of Transport Commissioners
for Canada.

BOARD OF TRANSPORT COMMISSIONERS
FOR CANADA
Examined and certified as a true copy
under Section 23 of "The Railway Act".

/s/ C. W. Rump

(C. W. RUMP)
Secretary, Board of Transport
Commissioners for Canada
OTTAWA, May 25, 1956.

TRANS-CANADA PIPE LINES LIMITED

Supplement of October, 1956 to

Report on Economic Feasibility
Of Proposed Natural Gas Pipeline Project

SEPTEMBER, 1956

COMMONWEALTH SERVICES • INC.

NEW YORK, N. Y. • JACKSON, MICH. • WASHINGTON, D. C. • HOUSTON, TEX.

COMMONWEALTH SERVICES • INC.
NEW YORK, N.Y. • JACKSON, MICH.
WASHINGTON, D.C. • HOUSTON, TEX.

300 PARK AVENUE, NEW YORK 22, N.Y.

October 18, 1956

Mr. Francis Kernan
White, Weld & Co.
40 Wall Street
New York 5, N. Y.

Dear Mr. Kernan:

Following the negotiation concluded Friday, October 5, 1956, between Trans-Canada Pipe Lines Limited and The Consumers' Gas Company of Toronto for a new contract covering materially increased firm gas volumes, we have reworked Schedules 3, 4, 5, 6, 7, 8 and 9 of Exhibit 7 relating to Plan I and the same Schedules of Exhibit 8 relating to Plan II, as set forth in our September 1956 "Report on Economic Feasibility of Proposed Natural Gas Pipeline Project" of Trans-Canada Pipe Lines Limited. Such revised schedules are reproduced in this supplement to the Report, dated October, 1956.

The effect of the new contract is to increase Trans-Canada's firm gas sales and revenues and improve the estimated income in each of the years commencing with 1957/58. For the year 1962/63 the amount of peak-day sales capacity available under Plan 2 is reduced to approximately 30,000 Mcf per day, a figure very near to the practical minimum. You will note from the figures under Plan 2 for the twelve-months period ended October 31, 1963, set forth on the Exhibit 8 Schedule 6 supplement, that the results discussed in Section II of the September 1956, report in connection with the "hypothetical full development year" will have been virtually achieved in that period. The resulting coverage figures are set forth in the Exhibit 8 Schedule 9 supplement. Earnings per common share are set forth on the bottom line of the Schedule 6 supplements.

In addition to the data shown in the supplements, we have also computed the percent return on the investment for Plan I and Plan II as follows:

	Percent Return On Investment	
Year	PLAN I	PLAN II
1957/58	-	-
1958/59	1.37%	1.73%
1959/60	3.57%	3.94%
1960/61	4.76%	5.22%
1961/62	5.64%	5.95%
1962/63	7.52%	7.84%

The following tabulation, based on data shown in Exhibit 7 Schedule 4 supplement, for the 1957/58 year and from Exhibit 8 Schedule 4 supplement, for subsequent years, sets forth the estimated maximum gas purchase requirements of Trans-Canada for Alberta gas stated on both the sales pressure base of 14.73 psia and the gas purchase contract pressure base of 14.4 psia:

	Estimated Annual Gas Purchase Requirements - Mcf	
Year	At Sales Pressure Base of 14.73 psia	At Gas Purchase Pressure Base of 14.4 psia
1957/58	19,257,000	19,698,000
1958/59	102,368,000	104,714,000
1959/60	133,255,000	136,309,000
1960/61	160,449,000	164,126,000
1961/62	180,647,000	184,787,000
1962/63	199,841,000	204,421,000

As will be noted from the supplements to the exhibit schedules and the above figures on per cent return, the new agreement between Trans-Canada and The Consumers' Gas Company of Toronto, materially improves the feasibility of the Trans-Canada project under either Plan I or Plan II and virtually makes the year 1962/63 the "full development" year discussed in the September 1956 report on economic feasibility in Section II "Conclusions as to Feasibility."

Yours very truly,

COMMONWEALTH SERVICES INC.

W B Tippy

W. B. Tippy
President

WBT:MHD

TRANS-CANADA PIPE LINES LIMITED

Supplement of October, 1956 to

Report on Economic Feasibility
Of Proposed Natural Gas Pipeline Project

SEPTEMBER, 1956

COMMONWEALTH SERVICES • INC.

NEW YORK, N. Y. • JACKSON, MICH. • WASHINGTON, D. C. • HOUSTON, TEX.

Exhibit 7
Schedule 3
Supplement
Plan 1

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED GAS SALES AND REVENUE

PLAN 1

	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63
Winnipeg and West						
Requirements - MCF						
Saskatchewan Power Corporation	3,294,100	3,987,600	4,681,100	5,201,300	5,894,800	6,588,300
Plains Western Gas & Electric Company	931,180	1,104,103	1,261,858	1,401,150	1,538,860	1,656,240
Manitoba Power Corporation	-	1,000,000	1,240,000	2,100,000	3,100,000	-
Intercity Gas Company	1,015,400	1,092,400	1,166,600	1,238,200	1,320,600	1,396,000
Winnipeg & Central Gas Company	4,872,000	6,127,000	7,157,000	8,323,000	9,591,000	10,579,000
Total	10,112,680	13,311,103	15,506,558	18,263,650	21,445,260	20,219,540
Revenue						
Saskatchewan Power Corporation	$ 690,467	$ 835,830	$ 981,192	$ 1,090,228	$ 1,235,590	$ 1,380,952
Plains Western Gas & Electric Company	252,853	347,792	397,485	489,132	539,200	579,450
Manitoba Power Corporation	-	250,000	310,000	420,000	620,000	-
Intercity Gas Company	313,884	337,807	360,849	457,256	488,568	517,220
Winnipeg & Central Gas Company	1,431,956	1,871,195	2,231,765	2,616,095	3,050,735	3,439,475
Total	$ 2,689,160	$ 3,642,624	$ 4,281,291	$ 5,072,711	$ 5,934,093	$ 5,917,097
East of Winnipeg						
Requirements - MCF						
Northern Ontario Natural Gas Company Limited						
Western Ontario Zone	6,223,000 1/	7,042,700	7,756,300	8,625,000	9,835,000	9,835,000
Northern Ontario Zone	-	10,862,900	15,385,600	21,487,900	22,427,300	23,382,900
Subtotal	6,223,000	17,905,600	23,141,900	30,112,900	32,262,300	33,217,900
Barrie, Orillia, etc.	-	580,000	914,000	1,261,000	1,524,000	1,732,000
The Consumers' Gas Company of Toronto	-	25,595,600	31,025,000	35,678,800	43,435,000	51,191,300
Union Gas Company of Canada, Limited	-	5,000,000	19,336,000	24,072,150	24,603,000	28,806,560
The Grimsby Natural Gas Company, Limited	-	111,000	120,000	128,000	137,000	145,000
Dominion Natural Gas Company, Limited	-	300,000	500,000	600,000	700,000	780,000
Lakeland Natural Gas Limited	-	1,425,000	2,371,000	2,895,000	3,771,000	4,001,000
Lake Shore Group	-	2,957,000	3,340,000	3,705,500	2,997,000	3,444,900
Interprovincial Utilities Limited	-	9,803,000	9,768,000	10,543,550	10,967,000	11,607,800
Quebec Natural Gas Corporation	-	18,400,000	21,790,000	24,825,000	28,205,000	31,510,000
Total	6,223,000	82,077,200	112,305,900	133,821,900	148,601,300	166,436,460
Total Requirements in MCF - East and West of Winnipeg	16,335,680	95,388,303	127,812,458	152,085,550	170,046,560	186,656,000
Revenue						
Northern Ontario Natural Gas Company Limited						
Western Ontario Zone	$ 2,105,254 1/	$ 2,455,595	$ 2,714,035	$ 3,028,650	$ 3,466,870	$ 3,466,870
Northern Ontario Zone	-	4,616,530	6,379,700	9,137,780	9,647,460	10,141,510
Subtotal	2,105,254	7,072,125	9,093,735	12,166,430	13,114,330	13,608,380
Barrie, Orillia, etc.	-	308,560	486,248	670,852	990,600	1,125,800
The Consumers' Gas Company of Toronto	-	11,560,250	14,023,632	16,178,240	19,706,745	23,267,370
Union Gas Company of Canada, Limited	-	1,500,000	7,060,800	8,787,645	9,252,900	10,783,968
The Grimsby Natural Gas Company, Limited	-	59,052	63,840	68,096	89,050	94,250
Dominion Natural Gas Company, Limited	-	159,600	266,000	319,200	455,000	507,000
Lakeland Natural Gas Limited	-	663,840	1,105,200	1,347,240	1,758,510	1,866,900
Lake Shore Group	-	914,792	1,348,379	1,459,241	1,252,751	1,405,301
Interprovincial Utilities Limited	-	3,605,717	3,873,129	4,313,463	4,742,676	5,118,319
Quebec Natural Gas Corporation	-	7,685,100	9,277,800	11,019,900	13,055,700	14,705,400
Total	$ 2,105,254	$33,529,036	$ 46,598,763	$ 56,330,307	$ 64,418,262	$ 72,482,688
Total Revenue - East and West of Winnipeg	$ 4,794,414	$37,171,660	$ 50,880,054	$ 61,403,018	$ 70,352,355	$ 78,399,785

1/ Kenora, Dryden, Port Arthur and Fort William only, natural gas service to Nipigon and Geraldton assumed to commence November 1. 1958.

Exhibit 7
Schedule 4
Supplement
Plan 1

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED GAS PURCHASE REQUIREMENTS (MMCF) AND COST OF GAS PURCHASED

PLAN 1

	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63
Gas Purchased for Sale	16,336	95,388	127,813	152,086	170,047	186,656
Gas for Compressor Fuel	182	2,508	4,123	6,775	8,812	11,206
Subtotal	16,518	97,896	131,936	158,861	178,859	197,862
Losses 1%	165	979	1,319	1,588	1,788	1,979
Subtotal	16,683	98,875	133,255	160,449	180,647	199,841
Gas Purchased for						
Cleaning and purging	217	-	-	-	-	-
Filling the line	2,357	-	-	-	-	-
Total Purchased Gas	19,257	98,875	133,255	160,449	180,647	199,841
Cost of Gas Purchased - ¢ per Mcf						
Cost of Gas	10.22916	10.44227	10.69800	10.95372	11.20945	11.46518
Transportation cost	4.09167	4.09167	4.09167	4.09167	4.09167	4.09167
Delivered cost of gas (1)	14.32083	14.53394	14.78967	15.04539	15.30112	15.55685
Cost of Gas Purchased for						
Sale (operating expense)	$2,389,144	$14,370,433	$19,707,975	$24,140,178	$27,641,014	$31,088,965
Cleaning and purging (construction cost)	30,647	-	-	-	-	-
Filling the line (inventory gas)	337,542	-	-	-	-	-
Total Cost of Gas Purchased	$2,757,333	$14,370,433	$19,707,975	$24,140,178	$27,641,014	$31,088,965
Requirements MMcf						
Winnipeg and West	10,113	13,311	15,507	18,264	21,445	20,219
East of Winnipeg	6,223	82,077	112,306	133,822	148,602	166,437
Total	16,336	95,388	127,813	152,086	170,047	186,656
% of Requirements - each year						
Winnipeg and West	61.91	13.95	12.13	12.01	12.61	10.83
East of Winnipeg	38.09	86.05	87.87	87.99	87.39	89.17
Total	100.00	100.00	100.00	100.00	100.00	100.00
Allocation of total purchased MMcf based on requirements in each year						
Winnipeg and West	11,922	13,793	16,164	19,270	22,780	21,643
East of Winnipeg	7,335	85,082	117,091	141,179	157,867	178,198
Total	19,257	98,875	133,255	160,449	180,647	199,841

(1) At Saskatchewan Gate.

Exhibit 7
Schedule 5
Supplement
Plan 1

TRANS-CANADA PIPE LINES LIMITED

DATA RE CROWN CORPORATION SECTION RENTALS AND PURCHASE PRICE - PLAN 1

1. Design capacity east of Winnipeg @ 14.73 psia MMcf per day; 2/3 of capacity for one year equals 74,922 MMcf.
2. Cost of leased facilities equals $58,122,736 (first year only); 4-1/2% equals $2,615,523; rental payment per Mcf equals $.03491.
3. Cost of leased facilities equal $124,479,114 (after first year); 4-1/2% equals $5,601,560; rental payment per Mcf equals $.07476.

12 Months Ended: ($000s Omitted)	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63
Given Or Assumed The Following:						
Annual Volumes delivered East of Winnipeg @ 14.73 psia MMcf	7,335	85,082	117,091	141,179	157,867	178,198
Annual Amount of Mcf Rental Payments (@ $.03491 per Mcf for first year and $.07476 thereafter)	256	6,361	8,754	10,555	11,802	13,322
Capital Cost per Agreement as of Beginning of Each Year	58,123	122,291	124,479	130,647	135,503	139,886
(A) Calculation of Duration of 1% Payment Per Section 6 (b) (iv) of Agreement dated 11/21/55 with Government of Canada (Disregarding the Calendar Year Element) 7% Per Annum on Capital Costs	4,069	8,560	8,714	9,145	9,485	9,792
Less:						
Annual Amount of Rental Payment - Based upon Mcf	256	6,361	8,754	10,555	11,802	13,322
- Based on 1% of $124,479	-	-	-	-	1,245	-
Total	256	6,361	8,754	10,555	13,047	13,322
(1) Deficiency - Per Year	3,813	2,199	(40)	(1,410)	(3,562)	(3,530)
(2) - Cumulative (Line 4 Preceding Year Plus Line 1)	3,813	6,012	6,105	4,910	1,569	(1,781)
(3) Interest @ 3-1/2% on Deficiency at End of Preceding Year	-	133	215	221	180	61
(4) Total Net Deficiency	3,813	6,145	6,320	5,131	1,749	(1,720)

(B) Calculation of Purchase Price From Time to Time

	Under Section 7 or 8 (a) of Agreement					Under Section 8 (b) (1) of Agreement					
	Rental Payments from (A) above *	3-1/2% P/A Interest Semi-annually	Amortization Semi-annually	Add Additions As Of Year End	Purchase Price	3-1/2% P/A Amortization	Interest @ 3-1/2% on Amortization Cumulative	Amortization Per Year	Amortization Cumulative	Property Costs Time To Time	Purchase Price
As of 10-31-57	-	-	-	58,123	58,123	-	-	-	-	58,123	58,123
4-30-58	128	1,017	(889)	-	59,012	-	-	-	-	-	-
10-31-58	128	1,033	(905)	64,168	124,085	2,034	-	2,034	2,034	122,291	120,257
4-30-59	3,180	2,171	1,009	-	123,076	-	-	-	-	-	-
10-31-59	3,181	2,154	1,027	2,188	124,237	4,280	71	4,351	6,385	124,479	118,094
4-30-60	4,377	2,174	2,203	-	122,034	-	-	-	-	-	-
10-31-60	4,377	2,136	2,241	6,168	125,961	4,357	223	4,580	10,965	130,647	119,682
4-30-61	5,277	2,204	3,073	-	122,888	-	-	-	-	-	-
10-31-61	5,278	2,151	3,127	4,856	124,617	4,573	384	4,957	15,922	135,503	119,581
4-30-62	6,523	2,181	4,342	-	120,275	-	-	-	-	-	-
10-31-62	6,524	2,105	4,419	4,383	120,239	4,743	557	5,300	21,222	139,886	118,664
4-30-63	6,661	2,104	4,557	-	115,682	-	-	-	-	-	-
10-31-63	6,661	2,024	4,637	-	111,045	4,896	743	5,639	26,861	139,886	113,025

Under Section 8 (b) (2) of Agreement
Total Purchase Price At Any Time (70% of $124,479) 87,135

* The aggregate of each six months rental will probably vary. However, it is assumed here they will not.

Exhibit 7
Schedule 6
Supplement
Plan 1

TRANS-CANADA PIPE LINES LIMITED
Income Account Projection
1. Basis of latest Sales Volumes and Rates inside Canada - and without regard to limitations on Gas Volumes in Alberta.
2. Crown Company Facilities Not Purchased.
3. Emerson Lateral Not Constructed.

PLAN 1

Income Account Projection - 12 Months Ended: ($000s Omitted)	10-31-56	10-31-57	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63
Operating Revenues								
Winnipeg and West	$ -	$ -	$2,689	$ 3,643	$ 4,281	$ 5,073	$ 5,934	$ 5,917
East of Winnipeg	-	-	2,105	33,529	46,599	56,330	64,418	72,483
Total Revenues	-	-	4,794	37,172	50,880	61,403	70,352	78,400
(14.73 psia Mcf Unit Cost of Gas at Alberta Border)								
Cost of Gas Purchased	-	-	2,389	14,370	19,708	24,140	27,641	31,089
Operations and Maintenance	-	-	1,267	3,697	3,944	5,099	5,635	5,933
Rentals - Niagara Line	-	75	250	-	-	-	-	-
- Based on Mcf @ 3.491¢ for first year and 7.476¢ thereafter and on Net Profits, per formula	-	-	256	6,361	8,754	10,555	13,047	13,322
Taxes - General	-	87	351	1,164	1,186	1,265	1,311	1,365
Total	-	162	4,513	25,592	33,592	41,059	47,634	51,709
Balance Before Depreciation and Income Taxes	-	(162)	281	11,580	17,288	20,344	22,718	26,691
Depreciation Provision	-	-	801	8,336	8,627	8,959	9,211	9,368
Gross Income Before Income Taxes	-	(162)	(520)	3,244	8,661	11,385	13,507	17,323
Taxes - Income	-	-	-	-	-	-	-	-
Gross Income	-	(162)	(520)	3,244	8,661	11,385	13,507	17,323
Interest - First Mortgage Bonds - Public	-	813	3,925	7,200	7,200	7,200	6,962	6,644
- Subordinated Debentures - Public	-	3,025	3,300	3,300	3,300	3,300	3,300	3,300
- First Mortgage Bonds - Crown Corporation	475	50	-	-	-	-	-	-
- Subordinated Income Notes - Founders	-	-	-	115	479	580	580	580
Amortization of Debt Discount and Expense	-	92	133	133	133	133	133	133
Interest During Construction (Credit)	(671)	(5,702)	(8,257)	(53)	(233)	(93)	(155)	-
Fixed Charges	(196)	(1,722)	(899)	10,695	10,879	11,120	10,820	10,657
Net Income	196	1,560	379	(7,451)	(2,218)	265	2,687	6,666
Earned Surplus - Beginning of Year	-	196	1,756	2,135	(5,316)	(7,534)	(7,269)	(4,582)
- End of Year	196	1,756	2,135	(5,316)	(7,534)	(7,269)	(4,582)	2,084
Common Shares Outstanding - End of Period		4,928,183	4,928,183	4,928,183	4,928,183	4,928,183	4,928,183	4,928,183
Earnings Per Common Share (Commencing with first year of full operation)				-	-	$.05	$.54	$1.35

Exhibit 7
Schedule 7
Supplement
Plan 1

TRANS-CANADA PIPE LINES LIMITED

CASH FLOW PROJECTION - PLAN 1

($000s Omitted)

Cash Flow Projection - 12 Months Ended	10-31-56 (1)	10-31-57	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63
Net Income	196	1,560	379	(7,451)	(2,218)	265	2,687	6,666
Add:								
Depreciation	-	-	801	8,336	8,627	8,959	9,211	9,368
Amortization of Debt Discount and Expense	-	92	133	133	133	133	133	133
Income Tax Accrual	-	-	-	-	-	-	-	-
Subordinated Income Note Interest Accrued - Not Earned or Paid in Current Year	-	-	-	115	479	580	-	-
Total Cash Operations	196	1,652	1,313	1,133	7,021	9,937	12,031	16,167
Less:								
Income Tax Paid	-	-	-	-	-	-	-	-
Subordinated Income Note Interest Paid for Prior Years	-	-	-	-	-	-	1,174	-
Retirement of First Mortgage Bonds - Public	-	-	-	-	-	3,180	6,360	6,360
Retirement of First Mortgage Bonds - Crown Corporation	-	-	-	-	-	-	-	-
Retirement of Subordinated Debentures	-	-	-	-	-	-	-	-
Common Dividends	-	-	-	-	-	-	-	-
Total Recurring Outgo	-	-	-	-	-	3,180	7,534	6,360
Balance - Plus (Minus) Cash	196	1,652	1,313	1,133	7,021	6,757	4,497	9,807
Less:								
Construction	33,171	80,592	118,906	3,091	13,572	5,400	8,990	-
Preliminary Construction Costs Paid at 6/7/56 included in Construction above	(7,974)	-	-	-	-	-	-	-
Acquisition of Niagara Line	-	-	5,400	-	-	-	-	-
Materials and Supplies (Operations and Maintenance)	-	1,000	3,000	-	-	-	-	-
Materials and Supplies (Gas for filling line)	-	-	229	-	-	-	-	-
Bond Interest Accruals in excess of Payments	(475)	(2,550)	(3,300)	(1,650)	-	-	-	-
Total Other Requirements	24,722	79,042	124,235	1,441	13,572	5,400	8,990	-
Balance - Plus (Minus) Cash	(24,526)	(77,390)	(122,922)	(308)	(6,551)	1,357	(4,493)	9,807
Add:								
Outside Funds - First Mortgage Bonds - Public	-	45,000	99,000	-	-	-	-	-
- Subordinated Debentures - Public	-	60,000	-	-	-	-	-	-
- First Mortgage Bonds - Crown Corporation	38,000	(38,000)	-	-	-	-	-	-
- Subordinated Income Notes - Founders	-	-	-	7,797	2,743	12	-	-
- Common Stock (2)	-	30,000	-	-	-	-	-	-
(Financing Charges) - First Mortgage Bonds - Public	-	(400)	(463)	-	-	-	-	-
- Subordinated Debentures	-	(2,758)	-	-	-	-	-	-
- Common Stock	-	(1,379)	-	-	-	-	-	-
Prepaid Interest on Subordinated Debentures	-	(6,600)	-	-	-	-	-	-
Total Outside Funds	38,000	85,863	98,537	7,797	2,743	12	-	-
Balance - Plus (Minus) Cash	13,474	8,473	(24,385)	7,489	(3,808)	1,369	(4,493)	9,807
Cash - Beginning of Period (3)	6,710	20,184	28,657	4,272	11,761	7,953	9,322	4,829
- End of Period (3)	20,184	28,657	4,272	11,761	7,953	9,322	4,829	14,636

(1) From June 7 through October 31, 1956
(2) 1,928,183 shares from Founders @ $8 approx. equals $15,411,456
3,000,000 shares with Subord. Debs. @ $10 equals 30,000,000
4,928,183 $45,411,456
(3) Includes Government Securities

Exhibit 7
Schedule 8
Supplement
Plan 1

TRANS-CANADA PIPE LINES LIMITED

BALANCE SHEET PROJECTION - PLAN 1

($000s Omitted)

Balance Sheet Projection At:	6-7-56	10-31-56	10-31-57	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63
Assets									
Gross Plant - First of Year	$ -	$ -	$ 33,171	$113,763	$238,069	$241,160	$254,732	$260,132	$269,122
- Additions During Year	-	33,171	80,592	118,906	3,091	13,572	5,400	8,990	-
- Purchase of Niagara Line	-	-	-	5,400	-	-	-	-	-
- End of Year	-	33,171	113,763	238,069	241,160	254,732	260,132	269,122	269,122
Depreciation Reserve	58	58	58	859	9,195	17,822	26,781	35,992	45,360
Net Plant	(58)	33,113	113,705	237,210	231,965	236,910	233,351	233,130	223,762
Investments in Subsidiary Companies	156	156	156	156	156	156	156	156	156
Cash and Government Securities	6,710	20,184	28,657	4,272	11,761	7,953	9,322	4,829	14,636
Materials and Supplies (Operation and Maintenance)	-	-	1,000	4,000	4,000	4,000	4,000	4,000	4,000
Materials and Supplies (Gas for filling line)	-	-	-	229	229	229	229	229	229
Other Current Assets	25	25	25	25	25	25	25	25	25
Prepaid Interest on Subordinated Debentures	-	-	3,575	275	-	-	-	-	-
Unamortized Debt Discount and Expense - First Mortgage Bonds	-	-	400	822	781	740	699	658	617
Unamortized Debt Discount and Expense - Subordinated Debentures	-	-	2,666	2,574	2,482	2,390	2,298	2,206	2,114
Common Capital Stock Expense	-	-	1,379	1,379	1,379	1,379	1,379	1,379	1,379
Miscellaneous Equipment and Structures	252	252	252	252	252	252	252	252	252
Preliminary Construction Costs & Other Deferred Debits	8,336	362	362	362	362	362	362	362	362
Total Assets	$15,421	$54,092	$152,177	$251,556	$253,392	$254,396	$252,073	$247,226	$247,532
Liabilities									
First Mortgage Bonds - Public	$ -	$ -	$ 45,000	$144,000	$144,000	$144,000	$140,820	$134,460	$128,100
Subordinated Debentures - Public	-	-	60,000	60,000	60,000	60,000	60,000	60,000	60,000
First Mortgage Bonds - Crown Corporation	-	38,000	-	-	-	-	-	-	-
Subordinated Income Notes - Founders	-	-	-	-	7,797	10,540	10,552	10,552	10,552
Common Stock (4,928,183 shares at 10/31/63)	1,928	1,928	4,928	4,928	4,928	4,928	4,928	4,928	4,928
Premium on Common Stock	13,483	13,483	40,483	40,483	40,483	40,483	40,483	40,483	40,483
Earned Surplus	-	196	1,756	2,135	(5,316)	(7,534)	(7,269)	(4,582)	2,084
Total Capitalization	15,411	53,607	152,167	251,546	251,892	252,417	249,514	245,841	246,147
Accrued Income Taxes Payable	-	-			-	-	-	-	-
Accrued Interest Unearned on Subordinated Income Notes	-	-	-	-	115	594	1,174	-	-
Other Current Liabilities	10	485	10	10	1,385	1,385	1,385	1,385	1,385
Total Liabilities	$15,421	$54,092	$152,177	$251,556	$253,392	$254,396	$252,073	$247,226	$247,532
Capitalization Ratios									
First Mortgage Bonds				57.25%	57.17%	57.05%	56.44%	54.69%	52.04%
Subordinated Debentures				23.85	23.82	23.77	24.05	24.41	24.38
Common Equity (Including Subordinated Income Notes)				18.90	19.01	19.18	19.51	20.90	23.58
Total				100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

TRANS-CANADA PIPE LINES LIMITED

INTEREST AND DEBT SERVICE COVERAGE

PLAN 1

	1958/59	1959/60	1960/61	1961/62	1962/63
1. Times Coverage of Interest on First Mortgage Bonds, by Gross Income before Dominion Income Tax 1/	.451	1.203	1.581	1.940	2.607
2. Times Coverage of all Interest Paid, exclusive of Interest on Subordinated Income Notes, by Gross Income Before Dominion Income Tax 1/	.309	.825	1.084	1.316	1.742
3. Times Coverage of Total Debt Service Requirements (All Interest Paid, exclusive of Interest on Subordinated Income Notes, plus Mortgage Bond and Debenture Retirement Provisions), by Gross Income Before Depreciation 2/	1.103	1.646	1.487	1.367	1.637

	At 10/31/58	At 10/31/59	At 10/31/60	At 10/31/61	At 10/31/62	At 10/31/63
4. Ratio of Mortgage Debt to Gross Property Account 3/	60.49%	59.71%	56.53%	54.13%	49.96%	47.60%
5. Ratio of Mortgage Debt to Net Property Account 3/	60.71	62.08	60.78	60.35	57.68	57.25
6. Ratio of Total Long-Term Debt (exclusive of Subordinated Income Notes) to Gross Property Account 3/	85.69	84.59	80.08	77.20	72.26	69.89
7. Ratio of Total Long-Term Debt (exclusive of Subordinated Income Notes) to Net Property Account 3/	86.00	87.94	86.11	86.06	83.41	84.06

1/ Data from Exhibit 7, Schedule 6.
2/ Data from Exhibit 7, Schedules 6 and 7.
3/ Data from Exhibit 7, Schedule 8.

Exhibit 8
Schedule 3
Supplement
Plan 2

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED GAS SALES AND REVENUE

PLAN 2

	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63
Winnipeg and West						
Requirements - MCF						
Saskatchewan Power Corporation	3,294,100	3,987,600	4,681,100	5,201,300	5,894,800	6,588,300
Plains Western Gas & Electric Company	931,180	1,104,103	1,261,858	1,401,150	1,538,860	1,656,240
Manitoba Power Corporation	-	1,000,000	1,240,000	2,100,000	3,100,000	-
Intercity Gas Company	1,015,400	1,092,400	1,166,600	1,238,200	1,320,600	1,396,000
Winnipeg & Central Gas Company	4,872,000	6,127,000	7,157,000	8,323,000	9,591,000	10,579,000
Total	10,112,680	13,311,103	15,506,558	18,263,650	21,445,260	20,219,540
Revenue						
Saskatchewan Power Corporation	$ 690,467	$ 835,830	$ 981,192	$ 1,090,228	$ 1,235,590	$ 1,380,952
Plains Western Gas & Electric Company	252,853	347,792	397,485	489,132	539,200	579,450
Manitoba Power Corporation	-	250,000	310,000	420,000	620,000	-
Intercity Gas Company	313,884	337,807	360,849	457,256	488,568	517,220
Winnipeg & Central Gas Company	1,431,956	1,871,195	2,231,765	2,616,095	3,050,735	3,439,475
Total	$ 2,689,160	$ 3,642,624	$ 4,281,291	$ 5,072,711	$ 5,934,093	$ 5,917,097
East of Winnipeg						
Requirements - MCF						
Northern Ontario Natural Gas Company Limited						
Western Ontario Zone	6,223,000 1/	7,042,700	7,756,300	8,625,000	9,835,000	9,835,000
Northern Ontario Zone	-	10,862,900	15,385,600	21,487,900	22,427,300	23,382,900
Subtotal	6,223,000	17,905,600	23,141,900	30,112,900	32,262,300	33,217,900
Barrie, Orillia, etc.	-	580,000	914,000	1,261,000	1,524,000	1,732,000
The Consumers' Gas Company of Toronto	-	25,595,600	31,025,000	35,678,800	43,435,000	51,191,300
Union Gas Company of Canada, Limited	-	5,000,000	15,979,000	19,730,400	22,109,000	25,909,260
The Grimsby Natural Gas Company, Limited	-	111,000	120,000	128,000	137,000	145,000
Dominion Natural Gas Company, Limited	-	300,000	500,000	600,000	700,000	780,000
Lakeland Natural Gas Limited	-	1,425,000	2,371,000	2,895,000	3,771,000	4,001,000
Lake Shore Group	-	2,957,000	2,416,000	2,513,200	2,312,000	2,649,000
Interprovincial Utilities Limited	-	9,803,000	9,014,000	9,697,600	10,841,000	11,597,000
Quebec Natural Gas Corporation	13,400,000	21,790,000	26,825,000	31,205,000	31,510,000	35,214,000
Total	19,623,000	85,467,200	112,305,900	133,821,900	148,601,300	166,436,460
Total Requirements in MCF - East and West of Winnipeg	29,735,680	98,778,303	127,812,458	152,085,550	170,046,560	186,656,000
Revenue						
Northern Ontario Natural Gas Company Limited						
Western Ontario Zone	$ 2,105,254 1/	$ 2,455,595	$ 2,714,035	$ 3,028,650	$ 3,466,870	$ 3,466,870
Northern Ontario Zone	-	4,616,530	6,379,700	9,137,780	9,647,460	10,141,510
Subtotal	2,105,254	7,072,125	9,093,735	12,166,430	13,114,330	13,608,380
Barrie, Orillia, etc.	-	308,560	486,248	670,852	990,600	1,125,800
The Consumers' Gas Company of Toronto	-	11,560,250	14,023,632	16,178,240	19,706,745	23,267,370
Union Gas Company of Canada, Limited	-	1,500,000	6,053,700	7,485,120	8,504,700	9,914,778
The Grimsby Natural Gas Company, Limited	-	59,052	63,840	68,096	89,050	94,250
Dominion Natural Gas Company, Limited	-	159,600	266,000	319,200	455,000	507,000
Lakeland Natural Gas Limited	-	663,840	1,105,200	1,347,240	1,758,510	1,866,900
Lake Shore Group	-	914,792	1,071,179	1,101,551	1,047,251	1,166,531
Interprovincial Utilities Limited	-	3,605,717	3,646,929	4,059,678	4,704,876	5,115,079
Quebec Natural Gas Corporation	6,775,200	9,277,500	11,619,900	13,955,700	14,705,400	16,432,080
Total	$ 8,880,454	$35,121,736	$ 47,430,363	$ 57,352,107	$ 65,076,462	$ 73,098,168
Total Revenue - East and West of Winnipeg	$11,569,614	$38,764,360	$ 51,711,654	$ 62,424,818	$ 71,010,555	$ 79,015,265

1/ Kenora, Dryden, Port Arthur and Fort William only, natural gas service to Nipigon and Geraldton assumed to commence November 1, 1958.

Exhibit 8
Schedule 4
Supplement
Plan 2

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED GAS PURCHASE REQUIREMENTS (MMCF) AND COST OF GAS PURCHASED

PLAN 2

	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63
Gas Purchased for Sale						
From Producers	16,336	98,778	127,813	152,086	170,047	186,656
From Others (2)	13,400	-	-	-	-	-
Subtotal	29,736	98,778	127,813	152,086	170,047	186,656
Gas for Compressor Fuel	182	2,576	4,123	6,775	8,812	11,206
Subtotal	29,918	101,354	131,936	158,861	178,859	197,862
Losses 1%	299	1,014	1,319	1,588	1,788	1,979
Subtotal	30,217	102,368	133,255	160,449	180,647	199,841
Gas Purchased for						
Cleaning and purging (15 from others) (2)	217	-	-	-	-	-
Filling the line (84 from others) (2)	2,357	-	-	-	-	-
Total Purchased Gas	32,791	102,368	133,255	160,449	180,647	199,841
Cost of Gas Purchased - ¢ per Mcf						
From Producers						
Cost of Gas	10.22916	10.44227	10.69800	10.95372	11.20945	11.46518
Transportation cost	4.09167	4.09167	4.09167	4.09167	4.09167	4.09167
Delivered cost of gas (1)	14.32083	14.53394	14.78967	15.04539	15.30112	15.55685
From Others	38.69000	-	-	-	-	-
Cost of Gas Purchased for						
Sale (operating expenses)						
From Producers	$2,389,144	$14,878,104	$19,707,975	$24,140,178	$27,641,014	$31,088,965
From Others (2)	5,236,040	-	-	-	-	-
Cleaning and purging (construction cost)						
From Producers	28,498	-	-	-	-	-
From Others (2)	5,839	-	-	-	-	-
Filling the line (inventory gas)						
From Producers	325,512	-	-	-	-	-
From Others (2)	32,696	-	-	-	-	-
Total Cost of Gas Purchased	$8,017,729	$14,878,104	$19,707,975	$24,140,178	$27,641,014	$31,088,965
Requirements MMcf						
Winnipeg and West	10,113	13,311	15,507	18,264	21,445	20,219
East of Winnipeg (excludes "From Others")	6,223	85,467	112,306	133,822	148,602	166,437
Total	16,336	98,778	127,813	152,086	170,047	186,656
% of Requirements - each year						
Winnipeg and West	61.91	13.48	12.13	12.01	12.61	10.83
East of Winnipeg	38.09	86.52	87.87	87.99	87.39	89.17
Total	100.00	100.00	100.00	100.00	100.00	100.00
Allocation of total purchased MMcf (excluding "From Others" (2)) based on requirements in each year						
Winnipeg and West	11,859	13,799	16,164	19,270	22,780	21,643
East of Winnipeg	7,296	88,569	117,091	141,179	157,867	178,198
Total	19,155	102,368	133,255	160,449	180,647	199,841

(1) At Saskatchewan Gate.

(2) For Montreal and Sheridan Lines.

Exhibit 8
Schedule 5
Supplement
Plan 2

TRANS-CANADA PIPE LINES LIMITED

DATA RE CROWN CORPORATION SECTION RENTALS AND PURCHASE PRICE - PLAN 2

1. Design capacity east of Winnipeg @ 14.73 psia MMcf per day; 2/3 of capacity for one year equals 74,922 MMcf.
2. Cost of leased facilities equal $58,122,736 (first year only); 4-1/2% equals $2,615,523; rental payment per Mcf equals $.03491.
3. Cost of leased facilities equal $124,479,114 (after first year); 4-1/2% equals $5,601,560; rental payment per Mcf equals $.07476.

12 Months Ended: ($000s Omitted)	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63
Given Or Assumed The Following:						
Annual Volumes delivered East of Winnipeg @ 14.73 psia MMcf	7,296	88,569	117,091	141,179	157,867	178,198
Annual Amount of Mcf Rental Payments (@ $.03491 per Mcf for first year and $.07476 thereafter)	255	6,621	8,754	10,555	11,802	13,322
Capital Cost per Agreement as of Beginning of Each Year	58,123	122,291	124,479	130,647	135,503	139,886
(A) Calculation of Duration of 1% Payment per Section 6(b) (iv) of Agreement dated 11/21/55 with Government of Canada (Disregarding the Calendar Year Element) 7% per annum on Capital Costs	4,069	8,560	8,714	9,145	9,485	9,792
Less:						
Annual Amount of Rental Payment - Based upon Mcf	255	6,621	8,754	10,555	11,802	13,322
- Based on 1% of $124,479	-	-	-	-	1,245	-
Total	255	6,621	8,754	10,555	13,047	13,322
(1) Deficiency - Per Year	3,814	1,939	(40)	(1,410)	(3,562)	(3,530)
(2) - Cumulative (Line 4 Preceding Year Plus Line 1)	3,814	5,753	5,846	4,642	1,292	(2,068)
(3) Interest @ 3-1/2% on Deficiency at End of Preceding Year	-	133	206	212	170	51
(4) Total Net Deficiency	3,814	5,886	6,052	4,854	1,462	(2,017)

(B) Calculation of Purchase Price From Time to Time

Under Section 7 or 8 (a) of Agreement

	Rental Payments from (A) above *	3-1/2% P/A Interest Semi-annually	Amortization Semi-annually	Add Additions As Of Year End	Purchase Price
As of 10-31-57	-	-	-	58,123	58,123
4-30-58	127	1,017	(890)	-	59,013
10-31-58	128	1,033	(905)	64,168	124,086
4-30-59	3,310	2,172	1,138	-	122,948
10-31-59	3,311	2,152	1,159	2,188	123,977
4-30-60	4,377	2,170	2,207	-	121,770
10-31-60	4,377	2,131	2,246	6,168	125,692
4-30-61	5,277	2,200	3,077	-	122,615
10-31-61	5,278	2,146	3,132	4,856	124,339
4-30-62	6,523	2,176	4,347	-	119,992
10-31-62	6,524	2,100	4,424	4,383	119,951
4-30-63	6,661	2,099	4,562	-	115,389
10-31-63	6,661	2,019	4,642	-	110,747

Under Section 8 (b) (2) of Agreement
Total Purchase Price At Any Time (70% of $124,479) 87,135

Under Section 8 (b) (1) of Agreement

	3-1/2% P/A Amortization	Interest @ 3-1/2% on Amortization Cumulative	Amortization Per Year	Amortization Cumulative	Property Costs Time To Time	Purchase Price
As of 10-31-57	-	-	-	-	58,123	58,123
4-30-58	-	-	-	-	-	-
10-31-58	2,034	-	2,034	2,034	122,291	120,257
4-30-59	-	-	-	-	-	-
10-31-59	4,280	71	4,351	6,385	124,479	118,094
4-30-60	-	-	-	-	-	-
10-31-60	4,357	223	4,580	10,965	130,647	119,682
4-30-61	-	-	-	-	-	-
10-31-61	4,573	384	4,957	15,922	135,503	119,581
4-30-62	-	-	-	-	-	-
10-31-62	4,743	557	5,300	21,222	139,886	118,664
4-30-63	-	-	-	-	-	-
10-31-63	4,896	743	5,639	26,861	139,886	113,025

* The aggregate of each six months rental will probably vary. However, it is assumed here they will not.

TRANS-CANADA PIPE LINES LIMITED

Income Account Projection

1. Basis of latest Sales Volumes and Rates inside Canada - and without regard to limitations on Gas Volumes in Alberta.
2. Crown Company Facilities Not Purchased.
3. Emerson Lateral Not Constructed.

PLAN 2

Income Account Projection - 12 Months Ended: ($000s Omitted)	10-31-56	10-31-57	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63
Operating Revenues								
Winnipeg & West	$ -	$ -	$ 2,689	$ 3,643	$ 4,281	$ 5,073	$ 5,934	$ 5,917
East of Winnipeg	-	-	8,881	35,122	47,431	57,352	65,077	73,098
Total Revenues	-	-	11,570	38,765	51,712	62,425	71,011	79,015
(14.73 psia Mcf Unit Cost of Gas at Alberta Border)								
Cost of Gas Purchased	-	-	7,625	14,878	19,708	24,140	27,641	31,089
Operations & Maintenance	-	-	1,666	3,697	3,944	5,099	5,635	5,933
Rentals - Niagara Line	-	75	250	-	-	-	-	-
- Based on Mcf @ 3.491¢ for first year and 7.476¢ thereafter and on Net Profits, per formula	-	-	255	6,621	8,754	10,555	13,047	13,322
Taxes - General	-	87	577	1,164	1,186	1,265	1,311	1,365
Total	-	162	10,373	26,360	33,592	41,059	47,634	51,709
Balance Before Depreciation and Income Taxes	-	(162)	1,197	12,405	18,120	21,366	23,377	27,306
Depreciation Provision	-	-	1,989	8,328	8,619	8,951	9,203	9,360
Gross Income Before Income Taxes	-	(162)	(792)	4,077	9,501	12,415	14,174	17,946
Taxes - Income	-	-	-	-	-	-	-	-
Gross Income	-	(162)	(792)	4,077	9,501	12,415	14,174	17,946
Interest - First Mtge. Bonds - Public	-	813	3,925	7,200	7,200	7 200	6,962	6,644
Subordinated Debentures - Public	-	3,025	3,300	3,300	3,300	3,300	3,300	3,300
First Mtge. Bonds - Crown Corp.	475	50	-	-	-	-	-	-
Subordinated Income Notes - Founders	-	-	-	107	429	495	495	495
Amortization of Debt Discount & Expense	-	92	133	133	133	133	133	133
Interest During Construction (Credit)	(671)	(6,159)	(7,573)	(53)	(233)	(93)	(155)	-
Fixed Charges	(196)	(2,179)	(215)	10,687	10,329	11,035	10,735	10,572
Net Income	196	2,017	(577)	(6,610)	(1,328)	1,380	3,439	7,374
Earned Surplus - Beginning of Year	-	196	2,213	1,636	(4,974)	(6,302)	(4,922)	(1,483)
- End of Year	196	2,213	1,636	(4,974)	(6,302)	(4,922)	(1,483)	5,891
Common Shares Outstanding - End of Period		4,928,183	4,928,183	4,928,183	4,928,183	4,928,183	4,928,183	4,928,183
Earnings Per Common Share (Commencing with first year of full operation)				-	-	$.28	$.70	$1.50

TRANS-CANADA PIPE LINES LIMITED

CASH FLOW PROJECTION - PLAN 2

($000s Omitted)

Exhibit 8
Schedule 7
Supplement
Plan 2

Cash Flow Projection - 12 Months Ended	10-31-56(1)	10-31-57	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63
Net Income	$ 196	$ 2,017	$ (577)	$(6,610)	$(1,328)	$ 1,380	$ 3,439	$ 7,374
Add:								
Depreciation	-	-	1,989	8,328	8,619	8,951	9,203	9,360
Amortization of Debt Discount and Expense	-	92	133	133	133	133	133	133
Income Tax Accrual	-	-	-	-	-	-	-	-
Subordinated Income Note Interest Accrued - Not Earned or Paid in Current Year	-	-	-	107	429	-	-	-
Total Cash Operations	196	2,109	1,545	1,958	7,853	10,464	12,775	16,867
Less:								
Income Tax Paid	-	-	-	-	-	-	-	-
Subordinated Income Note Interest Paid for Prior Years	-	-	-	-	-	536	-	-
Retirement of First Mortgage Bonds - Public	-	-	-	-	-	3,180	6,360	6,360
Retirement of First Mortgage Bonds - Crown Corporation	-	-	-	-	-	-	-	-
Retirement of Subordinated Debentures	-	-	-	-	-	-	-	-
Common Dividends	-	-	-	-	-	-	-	-
Total Recurring Outgo	-	-	-	-	-	3,716	6,360	6,360
Balance - Plus (Minus) Cash	196	2,109	1,545	1,958	7,853	6,748	6,415	10,507
Less:								
Construction	33,171	107,150	92,121	3,091	13,572	5,400	8,990	-
Preliminary Const. Cost Paid at 6/7/56 included in construction above	(7,974)	-	-	-	-	-	-	-
Acquisition of Niagara Line	-	-	5,400	-	-	-	-	-
Materials and Supplies (Operation and Maintenance)	-	2,000	2,000	-	-	-	-	-
Materials and Supplies (Gas for filling line)	-	-	249	-	-	-	-	-
Bond Interest Accruals in excess of Payments	(475)	(2,550)	(3,300)	(1,650)	-	-	-	-
Total Other Requirements	24,722	106,600	96,470	1,441	13,572	5,400	8,990	-
Balance - Plus (Minus) Cash	(24,526)	(104,491)	(94,925)	517	(5,719)	1,348	(2,575)	10,507
Add:								
Outside Funds - First Mortgage Bonds - Public	-	45,000	99,000	-	-	-	-	-
- Subordinated Debentures - Public	-	60,000	-	-	-	-	-	-
- First Mortgage Bonds - Crown Corporation	38,000	(38,000)	-	-	-	-	-	-
- Subordinated Income Notes - Founders	-	-	-	7,103	1,904	-	-	-
- Common Stock (2)	-	30,000	-	-	-	-	-	-
(Financing Charges) - First Mortgage Bonds - Public	-	(400)	(463)	-	-	-	-	-
- Subordinated Debentures	-	(2,758)	-	-	-	-	-	-
- Common Stock	-	(1,379)	-	-	-	-	-	-
Prepaid Interest on Subordinated Debentures	-	(6,600)	-	-	-	-	-	-
Total Outside Funds	38,000	85,863	98,537	7,103	1,904	-	-	-
Balance - Plus (Minus) Cash	13,474	(18,628)	3,612	7,620	(3,815)	1,348	(2,575)	10,507
Cash - Beginning of Period (3)	6,710	20,184	1,556	5,168	12,788	8,973	10,321	7,746
- End of Period (3)	20,184	1,556	5,168	12,788	8,973	10,321	7,746	18,253

(1) From June 7 through October 31, 1956

(2) 1,928,183 shares from Founders @ $8 approx. equals $15,411,456
3,000,000 shares with Subord. Debs. @ $10 equals 30,000,000
4,928,183 $45,411,456

(3) Includes Government Securities

Exhibit 8
Schedule 8
Supplement
Plan 2

TRANS-CANADA PIPE LINES LIMITED

BALANCE SHEET PROJECTION - PLAN 2

($000s Omitted)

Balance Sheet Projection At:	6-7-56	10-31-56	10-31-57	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63
Assets									
Gross Plant - First of Year	$ -	$ -	$ 33,171	$140,321	$237,842	$240,933	$254,505	$259,905	$268,895
- Additions During Year	-	33,171	107,150	92,121	3,091	13,572	5,400	8,990	-
- Purchase of Niagara Line	-	-	-	5,400	-	-	-	-	-
- End of Year	-	33,171	140,321	237,842	240,933	254,505	259,905	268,895	268,895
Depreciation Reserve	58	58	58	2,047	10,375	18,994	27,945	37,148	46,508
Net Plant	(58)	33,113	140,263	235,795	230,558	235,511	231,960	231,747	222,387
Investments in Subsidiary Companies	156	156	156	156	156	156	156	156	156
Cash and Government Securities	6,710	20,184	1,556	5,168	12,788	8,973	10,321	7,746	18,253
Materials and Supplies (Operation and Maintenance)	-	-	2,000	4,000	4,000	4,000	4,000	4,000	4,000
Materials and Supplies (Gas for filling line)	-	-	-	249	249	249	249	249	249
Other Current Assets	25	25	25	25	25	25	25	25	25
Prepaid Interest on Subordinated Debentures	-	-	3,575	275	-	-	-	-	-
Unamortized Debt Discount and Expense - First Mortgage Bonds	-	-	400	822	781	740	699	658	617
Unamortized Debt Discount and Expense - Debentures	-	-	2,666	2,574	2,482	2,390	2,298	2,206	2,114
Common Capital Stock Expense	-	-	1,379	1,379	1,379	1,379	1,379	1,379	1,379
Miscellaneous Equipment and Structures	252	252	252	252	252	252	252	252	252
Preliminary Construction Costs and Other Deferred Debits	8,336	362	362	362	362	362	362	362	362
Total Assets	$15,421	$54,092	$152,634	$251,057	$253,032	$254,037	$251,701	$248,780	$249,794
Liabilities									
First Mortgage Bonds - Public	$ -	$ -	$ 45,000	$144,000	$144,000	$144,000	$140,820	$134,460	$128,100
Subordinated Debentures	-	-	60,000	60,000	60,000	60,000	60,000	60,000	60,000
First Mortgage Bonds - Crown Corporation	-	38,000	-	-	-	-	-	-	-
Subordinated Income Notes - Founders	-	-	-	-	7,103	9,007	9,007	9,007	9,007
Common Stock (4,928,183 shares at 10/31/63)	1,928	1,928	4,928	4,928	4,928	4,928	4,928	4,928	4,928
Premium on Common Stock	13,483	13,483	40,483	40,483	40,483	40,483	40,483	40,483	40,483
Earned Surplus	-	196	2,213	1,636	(4,974)	(6,302)	(4,922)	(1,483)	5,891
Total Capitalization	15,411	53,607	152,624	251,047	251,540	252,116	250,316	247,395	248,409
Accrued Income Taxes Payable	-	-	-	-	-	-	-	-	-
Accrued Interest Unearned on Subordinated Income Notes	-	-	-	-	107	536	-	-	-
Other Current Liabilities	10	485	10	10	1,385	1,385	1,385	1,385	1,385
Total Liabilities	$15,421	$54,092	$152,634	$251,057	$253,032	$254,037	$251,701	$248,780	$249,794
Capitalization Ratios									
First Mortgage Bonds				57.36%	57.25%	57.12%	56.26%	54.35%	51.57%
Subordinated Debentures				23.90	23.85	23.80	23.97	24.25	24.15
Common Equity (Including Subordinated Income Notes)				18.74	18.90	19.08	19.77	21.40	24.28
Total				100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Exhibit 8
Schedule 9
Supplement
Plan 2

TRANS-CANADA PIPE LINES LIMITED

INTEREST AND DEBT SERVICE COVERAGE

PLAN 2

		1958/59	1959/60	1960/61	1961/62	1962/63
1.	Times Coverage of Interest on First Mortgage Bonds, by Gross Income before Dominion Income Tax 1/	.566	1.320	1.724	2.036	2.701
2.	Times Coverage of All Interest Paid, exclusive of Interest on Subordinated Income Notes, by Gross Income Before Dominion Income Tax 1/	.388	.905	1.182	1.381	1.805
3.	Times Coverage of Total Debt Service Requirements (All Interest Paid, exclusive of Interest on Subordinated Income Notes, plus Mortgage Bond and Debenture Retirement Provisions), by Gross Income Before Depreciation 2/	1.181	1.726	1.562	1.406	1.675

		At 10-31-58	At 10-31-59	At 10-31-60	At 10-31-61	At 10-31-62	At 10-31-63
4.	Ratio of Mortgage Debt to Gross Property Account 3/	60.54%	59.77%	56.58%	54.18%	50.00%	47.64%
5.	Ratio of Mortgage Debt to Net Property Account 3/	61.07	62.46	61.14	60.71	58.02	57.60
6.	Ratio of Total Long-Term Debt (exclusive of Subordinated Income Notes) to Gross Property Account 3/	85.77	84.67	80.16	77.27	72.32	69.95
7.	Ratio of Total Long-Term Debt (exclusive of Subordinated Income Notes) to Net Property Account 3/	86.52	88.48	86.62	86.58	83.91	84.58

1/ Data from Exhibit 8, Schedule 6.
2/ Data from Exhibit 8, Schedules 6 and 7.
3/ Data from Exhibit 8, Schedule 8.

COMMONWEALTH SERVICES · INC.
NEW YORK, N.Y. · JACKSON, MICH.
WASHINGTON, D.C. · HOUSTON, TEX.

300 PARK AVENUE, NEW YORK 22, N.Y.

November 26, 1956

Mr. Francis Kernan
White, Weld & Company
40 Wall Street
New York, N. Y.

Dear Mr. Kernan:

Re: Trans-Canada Pipe Lines Limited - 10-Year Projection Under Plan I and Plan II, Dated October 23, 1956

The subject projection (identical as to the years through October 31, 1963 with our October Supplement to the September, 1956 full report on feasibility of the Trans-Canada project) was prepared principally to show the effect of acquiring the Crown Corporation section and conversion of the income notes as of November 1, 1963 on common stock earnings thereafter, with full reservation for or in lieu of income taxes in accordance with the mortgage indenture and assuming no additional investment in Trans-Canada's facilities after October 31, 1962.

We are informed that Trans-Canada and Quebec Natural Gas Company have reached agreement as to volume figures to be incorporated in a revised gas service contract. Applied to the 10-year projection, the new and higher contract demands after the second year of service to Montreal bring the line to full firm peak-day capacity in 1963/64 under either Plan I or Plan II but do so by displacing other lower priority sales (full sales capacity of line is already utilized as early as 1959/60) so that there will be no material change in total annual pipeline sales volumes. Selection of a higher minimum annual load factor by Quebec Natural results in a lower commodity price which is offsetting to the increased demand charges, resulting in but minor changes in estimated revenues, which you will note are estimated to ceiling off at around $81,000,000 a year. Consequently, we do not feel a revision of the 10-year projection or the report supplement is justified at this time.

The increased market potential beyond the pipeline capacity as proposed should be considered as a strong "plus factor" at this time, since Trans-Canada can readily accelerate its proposed construction program as markets develop and it can be assumed that the added investment will be profitable. In this connection, the 10-year projection shows idle cash accumulating in the last six years to over $75,000,000. If put to work at 7-1/2% as it accumulates, this is equivalent to additional earnings per common share commencing at 13¢ and increasing to nearly $1.00.

It should be noted that the projection assumed: (1) and interest rate of 5% on $144,000,000 of first mortgage bonds, (2) an interest rate of 5-1/2% on $60,000,000 of subordinated debentures, (3) 4,928,183 shares of common stock outstanding after completion of the original financing. To the extent that any of these assumptions as to financing are changed, the projection must be modified accordingly.

Yours very truly,

W B Tippy

W. B. Tippy
President

WBT:GL

TRANS-CANADA PIPE LINES LIMITED

10-YEAR PROJECTION UNDER PLAN 1 AND PLAN 2

October 23, 1956

COMMONWEALTH SERVICES • INC.

NEW YORK, N. Y. • JACKSON, MICH. • WASHINGTON, D. C. • HOUSTON, TEX.

Schedule A
Plan 1

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED GAS SALES AND REVENUE

PLAN 1

	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63	1963/64	1964/65 Thru 1967/68
Winnipeg and West								
Requirements - MCF								
Saskatchewan Power Corporation	3,294,100	3,987,600	4,681,100	5,201,300	5,894,800	6,588,300	7,282,000	7,282,000
Plains Western Gas & Electric Company	931,180	1,104,103	1,261,858	1,401,150	1,538,860	1,656,240	1,774,000	1,774,000
Manitoba Power Corporation	-	1,000,000	1,240,000	2,100,000	3,100,000	-	-	-
Intercity Gas Company	1,015,400	1,092,400	1,166,600	1,238,200	1,320,600	1,396,000	1,406,619	1,406,619
Winnipeg & Central Gas Company	4,872,000	6,127,000	7,157,000	8,323,000	9,591,000	10,579,000	10,118,996	10,118,996
Total	10,112,680	13,311,103	15,506,558	18,263,650	21,445,260	20,219,540	20,581,615	20,581,615
Revenue								
Saskatchewan Power Corporation	$ 690,467	$ 835,830	$ 981,192	$ 1,090,228	$ 1,235,590	$ 1,380,952	$ 1,526,350	$ 1,526,350
Plains Western Gas & Electric Company	252,853	347,792	397,485	489,132	539,200	579,450	620,766	620,766
Manitoba Power Corporation	-	250,000	310,000	420,000	620,000	-	-	-
Intercity Gas Company	313,884	337,807	360,849	457,256	488,568	517,220	529,105	529,105
Winnipeg & Central Gas Company	1,431,956	1,871,195	2,231,765	2,616,095	3,050,735	3,439,475	3,328,314	3,328,314
Total	$ 2,689,160	$ 3,642,624	$ 4,281,291	$ 5,072,711	$ 5,934,093	$ 5,917,097	$ 6,004,535	$ 6,004,535
East of Winnipeg								
Requirements - MCF								
Northern Ontario Natural Gas Company Limited								
Western Ontario Zone	6,223,000 1/	7,042,700	7,756,300	8,625,000	9,835,000	9,835,000	9,835,000	9,835,000
Northern Ontario Zone	-	10,862,900	15,385,600	21,487,900	22,427,300	23,382,900	22,152,723	22,152,723
Subtotal	6,223,000	17,905,600	23,141,900	30,112,900	32,262,300	33,217,900	31,987,723	31,987,723
Barrie, Orillia, etc.	-	580,000	914,000	1,261,000	1,524,000	1,732,000	1,898,000	1,898,000
The Consumers' Gas Company of Toronto	-	25,595,600	31,025,000	35,678,800	43,435,000	51,191,300	51,191,300	42,009,300
Union Gas Company of Canada, Limited	-	5,000,000	19,336,000	24,072,150	24,603,000	28,806,560	27,200,000	27,200,000
The Grimsby Natural Gas Company, Limited	-	111,000	120,000	128,000	137,000	145,000	164,000	164,000
Dominion Natural Gas Company, Limited	-	300,000	500,000	600,000	700,000	780,000	810,000	810,000
Lakeland Natural Gas Limited	-	1,425,000	2,371,000	2,895,000	3,771,000	4,001,000	4,271,000	4,271,000
Lake Shore Group	-	2,957,000	3,340,000	3,705,500	2,997,000	3,444,900	2,172,000	2,172,000
Interprovincial Utilities Limited	-	9,803,000	9,768,000	10,543,550	10,967,000	11,607,800	11,166,362	11,166,362
Quebec Natural Gas Corporation	-	18,400,000	21,790,000	24,825,000	28,205,000	31,510,000	35,214,000	44,396,000
Total	6,223,000	82,077,200	112,305,900	133,821,900	148,601,300	166,436,460	166,074,385	166,074,385
Total Requirements in MCF - East and West of Winnipeg	16,335,680	95,388,303	127,812,458	152,085,550	170,046,560	186,656,000	186,656,000	186,656,000
Revenue								
Northern Ontario Natural Gas Company Limited								
Western Ontario Zone	$ 2,105,254 1/	$ 2,455,595	$ 2,714,035	$ 3,028,650	$ 3,466,870	$ 3,466,870	$ 3,466,870	$ 3,466,870
Northern Ontario Zone	-	4,616,530	6,379,700	9,137,780	9,647,460	10,141,510	9,720,251	9,720,251
Subtotal	2,105,254	7,072,125	9,093,735	12,166,430	13,114,330	13,608,380	13,187,121	13,187,121
Barrie, Orillia, etc.	-	308,560	486,248	670,852	990,600	1,125,800	1,233,700	1,233,700
The Consumers' Gas Company of Toronto	-	11,560,250	14,023,632	16,178,240	19,706,745	23,267,370	23,851,590	21,096,990
Union Gas Company of Canada, Limited	-	1,500,000	7,060,800	8,787,645	9,252,900	10,783,968	10,608,000	10,608,000
The Grimsby Natural Gas Company, Limited	-	59,052	63,840	68,096	89,050	94,250	106,600	106,600
Dominion Natural Gas Company, Limited	-	159,600	266,000	319,200	455,000	507,000	526,500	526,500
Lakeland Natural Gas Limited	-	663,840	1,105,200	1,347,240	1,758,510	1,866,900	1,990,320	1,990,320
Lake Shore Group	-	914,792	1,348,379	1,459,241	1,252,751	1,405,301	1,041,611	1,041,611
Interprovincial Utilities Limited	-	3,605,717	3,873,129	4,313,463	4,742,676	5,118,319	5,105,944	5,105,944
Quebec Natural Gas Corporation	-	7,685,100	9,277,800	11,019,900	13,055,700	14,705,400	16,432,080	20,133,780
Total	$ 2,105,254	$33,529,036	$ 46,598,763	$ 56,330,307	$ 64,418,262	$ 72,482,688	$ 74,083,466	$ 75,030,566
Total Revenue - East and West of Winnipeg	$ 4,794,414	$37,171,660	$ 50,880,054	$ 61,403,018	$ 70,352,355	$ 78,399,785	$ 80,088,001	$ 81,035,101

1/ Kenora, Dryden, Port Arthur and Fort William only, natural gas service to Nipigon and Geraldton assumed to commence November 1, 1958.

Schedule A
Plan 2

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED GAS SALES AND REVENUE

PLAN 2

	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63	1963/64 Thru 1967/68
Winnipeg and West							
Requirements - MCF							
Saskatchewan Power Corporation	3,294,100	3,987,600	4,681,100	5,201,300	5,894,800	6,588,300	7,282,000
Plains Western Gas & Electric Company	931,180	1,104,103	1,261,858	1,401,150	1,538,860	1,656,240	1,774,000
Manitoba Power Corporation	-	1,000,000	1,240,000	2,100,000	3,100,000	-	-
Intercity Gas Company	1,015,400	1,092,400	1,166,600	1,238,200	1,320,600	1,396,000	1,365,000
Winnipeg & Central Gas Company	4,872,000	6,127,000	7,157,000	8,323,000	9,591,000	10,579,000	9,563,000
Total	10,112,680	13,311,103	15,506,558	18,263,650	21,445,260	20,219,540	19,984,000
Revenue							
Saskatchewan Power Corporation	$ 690,467	$ 835,830	$ 981,192	$ 1,090,228	$ 1,235,590	$ 1,380,952	$ 1,526,350
Plains Western Gas & Electric Company	252,853	347,792	397,485	489,132	539,200	579,450	620,766
Manitoba Power Corporation	-	250,000	310,000	420,000	620,000	-	-
Intercity Gas Company	313,884	337,807	360,849	457,256	488,568	517,220	518,700
Winnipeg & Central Gas Company	1,431,956	1,871,195	2,231,765	2,616,095	3,050,735	3,439,475	3,189,315
Total	$ 2,689,160	$ 3,642,624	$ 4,281,291	$ 5,072,711	$ 5,934,093	$ 5,917,097	$ 5,855,131
East of Winnipeg							
Requirements - MCF							
Northern Ontario Natural Gas Company Limited							
Western Ontario Zone	6,223,000 1/	7,042,700	7,756,300	8,625,000	9,835,000	9,835,000	9,835,000
Northern Ontario Zone	-	10,862,900	15,385,600	21,487,900	22,427,300	23,382,900	21,535,000
Subtotal	6,223,000	17,905,600	23,141,900	30,112,900	32,262,300	33,217,900	31,370,000
Barrie, Orillia, etc.	-	580,000	914,000	1,261,000	1,524,000	1,732,000	1,898,000
The Consumers' Gas Company of Toronto	-	25,595,600	31,025,000	35,678,800	43,435,000	51,191,300	44,244,000
Union Gas Company of Canada, Limited	-	5,000,000	15,979,000	19,730,400	22,109,000	25,909,260	27,200,000
The Grimsby Natural Gas Company, Limited	-	111,000	120,000	128,000	137,000	145,000	164,000
Dominion Natural Gas Company, Limited	-	300,000	500,000	600,000	700,000	780,000	810,000
Lakeland Natural Gas Limited	-	1,425,000	2,371,000	2,895,000	3,771,000	4,001,000	4,271,000
Lake Shore Group	-	2,957,000	2,416,000	2,513,200	2,312,000	2,649,000	2,172,000
Interprovincial Utilities Limited	-	9,803,000	9,014,000	9,697,600	10,841,000	11,597,000	10,147,000
Quebec Natural Gas Corporation	13,400,000	21,790,000	26,825,000	31,205,000	31,510,000	35,214,000	44,396,000
Total	19,623,000	85,467,200	112,305,900	133,821,900	148,601,300	166,436,460	166,672,000
Total Requirements in MCF - East and West of Winnipeg	29,735,680	98,778,303	127,812,458	152,085,550	170,046,560	186,656,000	186,656,000
Revenue							
Northern Ontario Natural Gas Company Limited							
Western Ontario Zone	$ 2,105,254 1/	$ 2,455,595	$ 2,714,035	$ 3,028,650	$ 3,466,870	$ 3,466,870	$ 3,466,870
Northern Ontario Zone	-	4,616,530	6,379,700	9,137,780	9,647,460	10,141,510	9,510,225
Subtotal	2,105,254	7,072,125	9,093,735	12,166,430	13,114,330	13,608,380	12,977,095
Barrie, Orillia, etc.	-	308,560	486,248	670,852	990,600	1,125,800	1,233,700
The Consumers' Gas Company of Toronto	-	11,560,250	14,023,632	16,178,240	19,706,745	23,267,370	21,767,400
Union Gas Company of Canada, Limited	-	1,500,000	6,053,700	7,485,120	8,504,700	9,914,778	10,608,000
The Grimsby Natural Gas Company, Limited	-	59,052	63,840	68,096	89,050	94,250	106,600
Dominion Natural Gas Company, Limited	-	159,600	266,000	319,200	455,000	507,000	526,500
Lakeland Natural Gas Limited	-	663,840	1,105,200	1,347,240	1,758,510	1,866,900	1,990,320
Lake Shore Group	-	914,792	1,071,179	1,101,551	1,047,251	1,166,531	1,041,611
Interprovincial Utilities Limited	-	3,605,717	3,646,929	4,059,678	4,704,876	5,115,079	4,728,780
Quebec Natural Gas Corporation	6,775,200	9,277,800	11,619,900	13,955,700	14,705,400	16,432,080	20,133,780
Total	$ 8,880,454	$35,121,736	$ 47,430,363	$ 57,352,107	$ 65,076,462	$ 73,098,168	$ 75,113,786
Total Revenue - East and West of Winnipeg	$11,569,614	$38,764,360	$ 51,711,654	$ 62,424,818	$ 71,010,555	$ 79,015,265	$ 80,968,917

1/ Kenora, Dryden, Port Arthur and Fort William only, natural gas service to Nipigon and Geraldton assumed to commence November 1, 1958.

Schedule B
Plan 1

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED GAS PURCHASE REQUIREMENTS (MMCF) AND COST OF GAS PURCHASED

PLAN 1

	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63	1963/64	1964/65	1965/66	1966/67	1967/68
Gas Purchased for Sale	16,336	95,388	127,813	152,086	170,047	186,656	186,656	186,656	186,656	186,656	186,656
Gas for Compressor Fuel	182	2,508	4,123	6,775	8,812	11,206	11,206	11,206	11,206	11,206	11,206
Subtotal	16,518	97,896	131,936	158,861	178,859	197,862	197,862	197,862	197,862	197,862	197,862
Losses 1%	165	979	1,319	1,588	1,788	1,979	1,979	1,979	1,979	1,979	1,979
Subtotal	16,683	98,875	133,255	160,449	180,647	199,841	199,841	199,841	199,841	199,841	199,841
Gas Purchased for											
Cleaning and purging	217	-	-	-	-	-	-	-	-	-	-
Filling the line	2,357	-	-	-	-	-	-	-	-	-	-
Total Purchased Gas	19,257	98,875	133,255	160,449	180,647	199,841	199,841	199,841	199,841	199,841	199,841
Cost of Gas Purchased - ¢ per Mcf											
Cost of gas	10.22916	10.44227	10.69800	10.95372	11.20945	11.46518	11.72091	11.97664	12.23237	12.48810	12.74383
Transportation cost	4.09167	4.09167	4.09167	4.09167	4.09167	4.09167	4.09167	4.09167	4.09167	4.09167	4.09167
Delivered cost of gas (1)	14.32083	14.53394	14.78967	15.04539	15.30112	15.55685	15.81258	16.06831	16.32404	16.57977	16.83550
Cost of Gas Purchased for											
Sale (operating expense)	$2,389,144	$14,370,433	$19,707,975	$24,140,178	$27,641,014	$31,088,965	$31,600,018	$32,111,071	$32,622,125	$33,133,178	$33,644,232
Cleaning and purging (construction cost)	30,647	-	-	-	-	-	-	-	-	-	-
Filling the line (inventory gas)	337,542	-	-	-	-	-	-	-	-	-	-
Total Cost of Gas Purchased	$2,757,333	$14,370,433	$19,707,975	$24,140,178	$27,641,014	$31,088,965	$31,600,018	$32,111,071	$32,622,125	$33,133,178	$33,644,232

	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63
Requirements MMcf						
Winnipeg and West	10,113	13,311	15,507	18,264	21,445	20,219
East of Winnipeg	6,223	82,077	112,306	133,822	148,602	166,437
Total	16,336	95,388	127,813	152,086	170,047	186,656
% of Requirements - each year						
Winnipeg and West	61.91	13.95	12.13	12.01	12.61	10.83
East of Winnipeg	38.09	86.05	87.87	87.99	87.39	89.17
Total	100.00	100.00	100.00	100.00	100.00	100.00
Allocation of total purchased MMcf based on requirements in each year						
Winnipeg and West	11,922	13,793	16,164	19,270	22,780	21,643
East of Winnipeg	7,335	85,082	117,091	141,179	157,867	178,198
Total	19,257	98,875	133,255	160,449	180,647	199,841

Note: These amounts, which are used in computing rentals payable to Crown Corporation are not shown after the year 1962/63 as it is assumed that Crown Corporation property will be purchased on November 1, 1963.

(1) At Saskatchewan Gate.

Schedule B
Plan 2

TRANS-CANADA PIPE LINES LIMITED

ESTIMATED GAS PURCHASE REQUIREMENTS (MMCF) AND COST OF GAS PURCHASED

PLAN 2

	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63	1963/64	1964/65	1965/66	1966/67	1967/68
Gas Purchased for Sale											
From Producers	16,336	98,778	127,813	152,086	170,047	186,656	186,656	186,656	186,656	186,656	186,656
From Others (2)	13,400	-	-	-	-	-	-	-	-	-	-
Subtotal	29,736	98,778	127,813	152,086	170,047	186,656	186,656	186,656	186,656	186,656	186,656
Gas for Compressor Fuel	182	2,576	4,123	6,775	8,812	11,206	11,206	11,206	11,206	11,206	11,206
Subtotal	29,918	101,354	131,936	158,861	178,859	197,862	197,862	197,862	197,862	197,862	197,862
Losses 1%	299	1,014	1,319	1,588	1,788	1,979	1,979	1,979	1,979	1,979	1,979
Subtotal	30,217	102,368	133,255	160,449	180,647	199,841	199,841	199,841	199,841	199,841	199,841
Gas Purchased for											
Cleaning and purging (15 from others) (2)	217	-	-	-	-	-	-	-	-	-	-
Filling the line (84 from others) (2)	2,357	-	-	-	-	-	-	-	-	-	-
Total Purchased Gas	32,791	102,368	133,255	160,449	180,647	199,841	199,841	199,841	199,841	199,841	199,841
Cost of Gas Purchased - ¢ per Mcf											
From Producers											
Cost of gas	10.22916	10.44227	10.69800	10.95372	11.20945	11.46518	11.72091	11.97664	12.23237	12.48810	12.74383
Transportation cost	4.09167	4.09167	4.09167	4.09167	4.09167	4.09167	4.09167	4.09167	4.09167	4.09167	4.09167
Delivered cost of gas (1)	14.32083	14.53394	14.78967	15.04539	15.30112	15.55685	15.81258	16.06831	16.32404	16.57977	16.83550
From Others	38.69000	-	-	-	-	-	-	-	-	-	-
Cost of Gas Purchased for											
Sale (operating expenses)											
From Producers	$2,389,144	$14,878,104	$19,707,975	$24,140,178	$27,641,014	$31,088,965	$31,600,018	$32,111,071	$32,622,125	$33,133,178	$33,644,232
From Others (2)	5,236,040	-	-	-	-	-	-	-	-	-	-
Cleaning and purging (construction cost)											
From Producers	28,498	.	-	-	-	-	-	-	-	-	-
From Others (2)	5,839	-	-	-	-	-	-	-	-	-	-
Filling the line (inventory gas)											
From Producers	325,512	-	-	-	-	-	-	-	-	-	-
From Others (2)	32,696	-	-	-	-	-	-	-	-	-	-
Total Cost of Gas Purchased	$8,017,729	$14,878,104	$19,707,975	$24,140,178	$27,641,014	$31,088,965	$31,600,018	$32,111,071	$32,622,125	$33,133,178	$33,644,232
Requirements MMCF											
Winnipeg and West	10,113	13,311	15,507	18,264	21,445	20,219					
East of Winnipeg (excludes "From Others")	6,223	85,467	112,306	133,822	148,602	166,437					
Total	16,336	98,778	127,813	152,086	170,047	186,656					
% of Requirements - each year											
Winnipeg and West	61.91	13.48	12.13	12.01	12.61	10.83					
East of Winnipeg	38.09	86.52	87.87	87.99	87.39	89.17					
Total	100.00	100.00	100.00	100.00	100.00	100.00					
Allocation of total purchased MMCF (excluding "From Others" (2)) based on requirements in each year											
Winnipeg and West	11,859	13,799	16,164	19,270	22,780	21,643					
East of Winnipeg	7,296	88,569	117,091	141,179	157,867	178,198					
Total	19,155	102,368	133,255	160,449	180,647	199,841					

Note: These amounts, which are used in computing rentals payable to Crown Corporation are not shown after the year 1962/63 as it is assumed that Crown Corporation property will be purchased on November 1, 1963.

(1) At Saskatchewan Gate.
(2) For Montreal and Sheridan Lines.

TRANS-CANADA PIPE LINES LIMITED

DATA RE CROWN CORPORATION SECTION RENTALS AND PURCHASE PRICE - PLAN 1

1. Design capacity east of Winnipeg @ 14.73 psia MMcf per day; 2/3 of capacity for one year equals 74,922 MMcf.
2. Cost of leased facilities equals $58,122,736 (first year only); 4-1/2% equals $2,615,523; rental payment per Mcf equals $.03491.
3. Cost of leased facilities equal $124,479,114 (after first year); 4-1/2% equals $5,601,560; rental payment per Mcf equals $.07476.

12 Months Ended: ($000s Omitted)	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63
Given Or Assumed The Following:						
Annual Volumes delivered East of Winnipeg @ 14.73 psia MMcf	7,335	85,082	117,091	141,179	157,867	178,198
Annual Amount of Mcf Rental Payments (@ $.03491 per Mcf for first year and $.07476 thereafter)	256	6,361	8,754	10,555	11,802	13,322
Capital Cost per Agreement as of Beginning of Each Year	58,123	122,291	124,479	130,647	135,503	139,886
(A) Calculation of Duration of 1% Payment Per Section 6 (b) (iv) of Agreement dated 11/21/55 with Government of Canada (Disregarding the Calendar Year Element) 7% Per Annum on Capital Costs	4,069	8,560	8,714	9,145	9,485	9,792
Less:						
Annual Amount of Rental Payment - Based upon Mcf	256	6,361	8,754	10,555	11,802	13,322
- Based on 1% of $124,479	-	-	-	-	1,245	-
Total	256	6,361	8,754	10,555	13,047	13,322
(1) Deficiency - Per Year	3,813	2,199	(40)	(1,410)	(3,562)	(3,530)
(2) - Cumulative (Line 4 Preceding Year Plus Line 1)	3,813	6,012	6,105	4,910	1,569	(1,781)
(3) Interest @ 3-1/2% on Deficiency at End of Preceding Year	-	133	215	221	180	61
(4) Total Net Deficiency	3,813	6,145	6,320	5,131	1,749	(1,720)

(B) Calculation of Purchase Price From Time to Time

	Under Section 7 or 8 (a) of Agreement					Under Section 8 (b) (1) of Agreement					
	Rental Payments from (A) above *	3-1/2% P/A Interest Semi-annually	Amortization Semi-annually	Add Additions As Of Year End	Purchase Price	3-1/2% P/A Amortization	Interest @ 3-1/2% on Amortization Cumulative	Amortization Per Year	Amortization Cumulative	Property Costs Time To Time	Purchase Price
As of 10-31-57	-	-	-	58,123	58,123	-	-	-	-	58,123	58,123
4-30-58	128	1,017	(889)	-	59,012	-	-	-	-	-	-
10-31-58	128	1,033	(905)	64,168	124,085	2,034	-	2,034	2,034	122,291	120,257
4-30-59	3,180	2,171	1,009	-	123,076	-	-	-	-	-	-
10-31-59	3,181	2,154	1,027	2,188	124,237	4,280	71	4,351	6,385	124,479	118,094
4-30-60	4,377	2,174	2,203	-	122,034	-	-	-	-	-	-
10-31-60	4,377	2,136	2,241	6,168	125,961	4,357	223	4,580	10,965	130,647	119,682
4-30-61	5,277	2,204	3,073	-	122,888	-	-	-	-	-	-
10-31-61	5,278	2,151	3,127	4,856	124,617	4,573	384	4,957	15,922	135,503	119,581
4-30-62	6,523	2,181	4,342	-	120,275	-	-	-	-	-	-
10-31-62	6,524	2,105	4,419	4,383	120,239	4,743	557	5,300	21,222	139,886	118,664
4-30-63	6,661	2,104	4,557	-	115,682	-	-	-	-	-	-
10-31-63	6,661	2,024	4,637	-	111,045	4,896	743	5,639	26,861	139,886	113,025
Under Section 8 (b) (2) of Agreement Total Purchase Price At Any Time (70% of $124,479)					87,135						

* The aggregate of each six months rental will probably vary. However, it is assumed here they will not.

TRANS-CANADA PIPE LINES LIMITED

DATA RE CROWN CORPORATION SECTION RENTALS AND PURCHASE PRICE - PLAN 2

1. Design capacity east of Winnipeg @ 14.73 psia MMcf per day; 2/3 of capacity for one year equals 74,922 MMcf.
2. Cost of leased facilities equal $58,122,736 (first year only); 4-1/2% equals $2,615,523; rental payment per Mcf equals $.03491.
3. Cost of leased facilities equal $124,479,114 (after first year); 4-1/2% equals $5,601,560; rental payment per Mcf equals $.07476.

12 Months Ended: ($000s Omitted)	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63
Given Or Assumed The Following:						
Annual Volumes delivered East of Winnipeg @ 14.73 psia MMcf	7,296	88,569	117,091	141,179	157,867	178,198
Annual Amount of Mcf Rental Payments (@ $.03491 per Mcf for first year and $.07476 thereafter)	255	6,621	8,754	10,555	11,802	13,322
Capital Cost per Agreement as of Beginning of Each Year	58,123	122,291	124,479	130,647	135,503	139,886
(A) Calculation of Duration of 1% Payment per Section 6(b) (iv) of Agreement dated 11/21/55 with Government of Canada (Disregarding the Calendar Year Element) 7% per annum on Capital Costs	4,069	8,560	8,714	9,145	9,485	9,792
Less:						
Annual Amount of Rental Payment - Based upon Mcf	255	6,621	8,754	10,555	11,802	13,322
- Based on 1% of $124,479	-	-	-	-	1,245	-
Total	255	6,621	8,754	10,555	13,047	13,322
(1) Deficiency - Per Year	3,814	1,939	(40)	(1,410)	(3,562)	(3,530)
(2) - Cumulative (Line 4 Preceding Year Plus Line 1)	3,814	5,753	5,846	4,642	1,292	(2,068)
(3) Interest @ 3-1/2% on Deficiency at End of Preceding Year	-	133	206	212	170	51
(4) Total Net Deficiency	3,814	5,886	6,052	4,854	1,462	(2,017)

(B) Calculation of Purchase Price From Time to Time

	Under Section 7 or 8 (a) of Agreement					Under Section 8 (b) (1) of Agreement					
	Rental Payments from (A) above *	3-1/2% P/A Interest Semi-annually	Amortization Semi-annually	Add Additions As Of Year End	Purchase Price	3-1/2% P/A Amortization	Interest @ 3-1/2% on Amortization Cumulative	Amortization Per Year	Amortization Cumulative	Property Costs Time To Time	Purchase Price
As of 10-31-57	-	-	-	58,123	58,123	-	-	-	-	58,123	58,123
4-30-58	127	1,017	(890)	-	59,013	-	-	-	-	-	-
10-31-58	128	1,033	(905)	64,168	124,086	2,034	-	2,034	2,034	122,291	120,257
4-30-59	3,310	2,172	1,138	-	122,948	-	-	-	-	-	-
10-31-59	3,311	2,152	1,159	2,188	123,977	4,280	71	4,351	6,385	124,479	118,094
4-30-60	4,377	2,170	2,207	-	121,770	-	-	-	-	-	-
10-31-60	4,377	2,131	2,246	6,168	125,692	4,357	223	4,580	10,965	130,647	119,682
4-30-61	5,277	2,200	3,077	-	122,615	-	-	-	-	-	-
10-31-61	5,278	2,146	3,132	4,856	124,339	4,573	384	4,957	15,922	135,503	119,581
4-30-62	6,523	2,176	4,347	-	119,992	-	-	-	-	-	-
10-31-62	6,524	2,100	4,424	4,383	119,951	4,743	557	5,300	21,222	139,886	118,664
4-30-63	6,661	2,099	4,562	-	115,389	-	-	-	-	-	-
10-31-63	6,661	2,019	4,642	-	110,747	4,896	743	5,639	26,861	139,886	113,025

Under Section 8 (b) (2) of Agreement
Total Purchase Price At Any Time (70% of $124,479) 87,135

* The aggregate of each six months rental will probably vary. However, it is assumed here they will not.

TRANS-CANADA PIPE LINES LIMITED
Income Account Projection

1. Basis of latest Sales Volumes and Rates inside Canada - and without regard to limitations on Gas Volumes in Alberta.
2. Crown Company Facilities Purchased on November 1, 1963.
3. Emerson Lateral Not Constructed.

PLAN 1

Income Account Projection - 12 Months Ended: ($000s Omitted)	10-31-56	10-31-57	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63	10-31-64	10-31-65	10-31-66	10-31-67	10-31-68
Operating Revenues													
Winnipeg & West	$ -	$ -	$ 2,689	$ 3,643	$ 4,281	$ 5,073	$ 5,934	$ 5,917	$ 6,005	$ 6,005	$ 6,005	$ 6,005	$ 6,005
East of Winnipeg	-	-	2,105	33,529	46,599	56,330	64,418	72,483	74,083	75,030	75,030	75,030	75,030
Total Revenues	-	-	4,794	37,172	50,880	61,403	70,352	78,400	80,088	81,035	81,035	81,035	81,035
(14.73 psia Mcf Unit Cost of Gas at Alberta Border)													
Cost of Gas Purchased	-	-	2,389	14,370	19,708	24,140	27,641	31,089	31,600	32,111	32,622	33,133	33,644
Operations & Maintenance	-	-	1,267	3,697	3,944	5,099	5,635	5,933	5,933	5,933	5,933	5,933	5,933
Rentals - Niagara Line	-	75	250	-	-	-	-	-	-	-	-	-	-
- Based on Mcf @ 3.491¢ for first year and 7.476¢ thereafter and on Net Profits, per formula	-	-	256	6,361	8,754	10,555	13,047	13,322	-	-	-	-	-
Taxes - General	-	87	351	1,164	1,186	1,265	1,311	1,365	1,365	1,365	1,365	1,365	1,365
Total	-	162	4,513	25,592	33,592	41,059	47,634	51,709	38,898	39,409	39,920	40,431	40,942
Balance Before Depreciation and Income Taxes	-	(162)	281	11,580	17,288	20,344	22,718	26,691	41,190	41,626	41,115	40,604	40,093
Depreciation Provision	-	-	801	8,336	8,627	8,959	9,211	9,368	13,324	13,324	13,324	13,324	13,324
Gross Income Before Income Taxes	-	(162)	(520)	3,244	8,661	11,385	13,507	17,323	27,866	28,302	27,791	27,280	26,769
Taxes - Income (See Note)	-	-	-	-	-	-	-	-	-	3,650	4,196	4,710	5,193
Gross Income	-	(162)	(520)	3,244	8,661	11,385	13,507	17,323	27,866	24,652	23,595	22,570	21,576
Interest - First Mtge. Bonds - Public	-	813	3,925	7,200	7,200	7,200	6,962	6,544	11,776	11,260	10,744	10,229	9,713
Subordinated Debentures - Public	-	3,025	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300
First Mtge. Bonds - Crown Corp.	475	50	-	-	-	-	-	-	-	-	-	-	-
Subordinated Income Notes - Founders	-	-	-	115	479	580	580	580	-	-	-	-	-
Amortization of Debt Discount & Expense	-	92	133	133	133	133	133	133	158	158	158	158	158
Interest During Construction (Credit)	(671)	(5,702)	(8,257)	(53)	(233)	(93)	(155)	-	-	-	-	-	-
Fixed Charges	(196)	(1,722)	(899)	10,695	10,879	11,120	10,820	10,557	15,234	14,718	14,202	13,687	13,171
Net Income	196	1,560	379	(7,451)	(2,218)	265	2,687	6,666	12,632	9,934	9,393	8,883	8,405
Provision for Deferred Income Taxes (reserved for property additions and/or bond retirements in accordance with the trust indenture)	-	-	-	-	-	-	-	-	1,452	2,803	2,260	1,748	1,267
Balance of Net Income Available for Common Stock Dividends	196	1,560	379	(7,451)	(2,218)	265	2,687	6,666	11,180	7,131	7,133	7,135	7,138
Earned Surplus - Beginning of Year	-	196	1,756	2,135	(5,316)	(7,534)	(7,269)	(4,582)	2,084	13,264	20,395	27,528	34,663
- End of Year	196	1,756	2,135	(5,316)	(7,534)	(7,269)	(4,582)	2,084	13,264	20,395	27,528	34,663	41,801
Common Shares Outstanding - End of Period		4,928,183	4,928,183	4,928,183	4,928,183	4,928,183	4,928,183	4,928,183	5,631,683	5,631,683	5,631,683	5,631,683	5,631,683
Earnings Per Common Share (Commencing with first year of full operation)													
On Net Income				-	-	$.05	$.54	$1.35	$2.24	$1.76	$1.67	$1.58	$1.49
On Balance of Net Income Available for Common Stock Dividends				-	-	$.05	$.54	$1.35	$1.99	$1.27	$1.27	$1.27	$1.27

Note:
Reflects for the year ending October 31, 1964 and subsequent years, the deduction of excess depreciation up to 6% per annum computed under the declining balance method, as required.

TRANS-CANADA PIPE LINES LIMITED

Income Account Projection

1. Basis of latest Sales Volumes and Rates inside Canada - and without regard to limitations on Gas Volumes in Alberta.
2. Crown Company facilities purchased on November 1, 1963.
3. Emerson Lateral not constructed.

PLAN 2

Income Account Projection - 12 Months Ended: ($000s Omitted)	10-31-56	10-31-57	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63	10-31-64	10-31-65	10-31-66	10-31-67	10-31-68
Operating Revenues													
Winnipeg and West	$ -	$ -	$ 2,680	$ 3,643	$ 4,281	$ 5,073	$ 5,934	$ 5,917	$ 5,855	$ 5,855	$ 5,855	$ 5,855	$ 5,855
East of Winnipeg	-	-	8,881	35,122	47,431	57,352	65,077	73,098	75,114	75,114	75,114	75,114	75,114
Total Revenues	-	-	11,570	38,765	51,712	62,425	71,011	79,015	80,969	80,969	80,969	80,969	80,969
(14.73 psia Mcf Unit Cost of Gas at Alberta Border)													
Cost of Gas Purchased	-	-	7,625	14,878	19,708	24,140	27,641	31,089	31,600	32,111	32,622	33,133	33,644
Operations and Maintenance	-	-	1,666	3,697	3,944	5,099	5,635	5,933	5,933	5,933	5,933	5,933	5,933
Rentals - Niagara Line	-	75	250	-	-	-	-	-	-	-	-	-	-
- Based on Mcf @ 3.491¢ for first year and 7.476¢ thereafter, and on Net Profits, per formula	-	-	255	6,621	8,754	10,555	13,047	13,322	-	-	-	-	-
Taxes - General	-	87	577	1,164	1,186	1,265	1,311	1,365	1,365	1,365	1,365	1,365	1,365
Total	-	162	10,373	26,360	33,592	41,059	47,634	51,709	38,898	39,409	39,920	40,431	40,942
Balance Before Depreciation and Income Taxes	-	(162)	1,197	12,405	18,120	21,366	23,377	27,306	42,071	41,560	41,049	40,538	40,027
Depreciation Provision	-	-	1,080	8,328	8,619	8,951	9,203	9,360	13,316	13,316	13,316	13,316	13,316
Gross Income Before Income Taxes	-	(162)	(792)	4,077	9,501	12,415	14,174	17,946	28,755	28,244	27,733	27,222	26,711
Taxes - Income (See Note)	-	-	-	-	-	-	-	-	-	3,796	4,332	4,836	5,309
Gross Income	-	(162)	(792)	4,077	9,501	12,415	14,174	17,946	28,755	24,448	23,401	22,386	21,402
Interest - First Mortgage Bonds - Public	-	813	3,925	7,200	7,200	7,200	6,962	6,644	11,776	11,260	10,744	10,229	9,713
- Subordinated Debentures - Public	-	3,025	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300
- First Mortgage Bonds - Crown Corporation	475	50	-	-	-	-	-	-	-	-	-	-	-
- Subordinated Income Notes - Founders	-	-	-	107	429	495	495	495	-	-	-	-	-
Amortization of Debt Discount and Expense	-	92	133	133	133	133	133	133	158	158	158	158	158
Interest During Construction (Credit)	(671)	(6,159)	(7,573)	(53)	(233)	(93)	(155)	-	-	-	-	-	-
Fixed Charges	(196)	(2,179)	(215)	10,687	10,829	11,035	10,735	10,572	15,234	14,718	14,202	13,687	13,171
Net Income	196	2,017	(577)	(6,610)	(1,328)	1,380	3,439	7,374	13,521	9,730	9,199	8,699	8,231
Provision for Deferred Income Taxes (reserved for property additions and/or bond retirements in accordance with the trust indenture)	-	-	-	-	-	-	-	-	2,683	2,630	2,096	1,594	1,124
Balance of Net Income Available for Common Stock Dividends	196	2,017	(577)	(6,610)	(1,328)	1,380	3,439	7,374	10,838	7,100	7,103	7,105	7,107
Earned Surplus - Beginning of Year	-	196	2,213	1,636	(4,974)	(6,302)	(4,922)	(1,483)	5,891	16,729	23,829	30,932	38,037
- End of Year	196	2,213	1,636	(4,974)	(6,302)	(4,922)	(1,483)	5,891	16,729	23,829	30,932	38,037	45,144
Common Shares Outstanding - End of Period		4,928,183	4,928,183	4,928,183	4,928,183	4,928,183	4,928,183	4,928,183	5,528,683	5,528,683	5,528,683	5,528,683	5,528,683
Earnings Per Common Share (Commencing with first year of full operation)													
On Net Income				-	-	$.28	$.70	$1.50	$2.45	$1.76	$1.66	$1.57	$1.49
On Balance of Net Income Available for Common Stock Dividends				-	-	$.28	$.70	$1.50	$1.96	$1.28	$1.28	$1.29	$1.29

Note: Reflects for the year ending October 31, 1964 and subsequent years, the deduction of excess depreciation up to 6% per annum computed under the declining balance method, as required.

TRANS-CANADA PIPE LINES LIMITED

CASH FLOW PROJECTION - PLAN 1

($000s Omitted)

Cash Flow Projection - 12 Months Ended	10-31-56(1)	10-31-57	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63	10-31-64	10-31-65	10-31-66	10-31-67	10-31-68
Net Income	196	1,560	379	(7,451)	(2,218)	265	2,687	6,666	11,180	7,131	7,133	7,135	7,138
Add:													
Depreciation	-	-	801	8,336	8,627	8,959	9,211	9,368	13,324	13,324	13,324	13,324	13,324
Amortization of Debt Discount and Expense	-	92	133	133	133	133	133	133	158	158	158	158	158
Income Tax Accrual	-	-	-	-	-	-	-	-	1,452	6,453	6,456	6,458	6,460
Subordinated Income Note Interest Accrued - Not Earned or Paid in Current Year	-	-	-	115	479	580	-	-	-	-	-	-	-
Total Cash Operations	196	1,652	1,313	1,133	7,021	9,937	12,031	16,167	26,114	27,066	27,071	27,075	7,080
Less:													
Income Tax Paid	-	-	-	-	-	-	-	-	-	-	3,650	4,196	4,710
Subordinated Income Note Interest Paid for Prior Years	-	-	-	-	-	-	1,174	-	-	-	-	-	-
Retirement of First Mortgage Bonds - Public	-	-	-	-	-	3,180	6,360	6,360	10,316	10,316	10,316	10,316	10,316
Retirement of First Mortgage Bonds - Crown Corporation	-	-	-	-	-	-	-	-	-	-	-	-	-
Retirement of Subordinated Debentures	-	-	-	-	-	-	-	-	-	-	-	-	-
Common Dividends	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Recurring Outgo	-	-	-	-	-	3,180	7,534	6,360	10,316	10,316	13,966	14,512	15,026
Balance - Plus (Minus) Cash	196	1,652	1,313	1,133	7,021	6,757	4,497	9,807	15,798	16,750	13,105	12,563	12,054
Less:													
Construction	33,171	80,592	118,906	3,091	13,572	5,400	8,990	-	-	-	-	-	-
Preliminary Const. Costs Paid at 6/7/56 included in Construction	(7,974)	-	-	-	-	-	-	-	-	-	-	-	-
Acquisition of Niagara Line	-	-	5,400	-	-	-	-	-	-	-	-	-	-
Acquisition of Crown Corporation Property	-	-	-	-	-	-	-	-	113,025	-	-	-	-
Materials & Supplies (Operation & Maintenance)	-	1,000	3,000	-	-	-	-	-	-	-	-	-	-
Materials & Supplies (Gas for filling line)	-	-	229	-	-	-	-	-	-	-	-	-	-
Bond Interest Accruals in excess of Payments	(475)	(2,550)	(3,300)	(1,650)	-	-	-	-	-	-	-	-	-
Total Other Requirements	24,722	79,042	124,235	1,441	13,572	5,400	8,990	-	113,025	-	-	-	-
Balance - Plus (Minus) Cash	(24,526)	(77,390)	(122,922)	(308)	(6,551)	1,357	(4,493)	9,807	(97,227)	16,750	13,105	12,563	12,054
Add:													
Outside Funds - First Mortgage Bonds - Public	-	45,000	99,000	-	-	-	-	-	110,000	-	-	-	-
- Subordinated Debentures - Public	-	60,000	-	-	-	-	-	-	-	-	-	-	-
- First Mortgage Bonds - Crown Corporation	38,000	(38,000)	-	-	-	-	-	-	-	-	-	-	-
- Subordinated Income Notes - Founders	-	-	-	7,797	2,743	12	-	-	-	-	-	-	-
- Common Stock (2)	-	30,000	-	-	-	-	-	-	-	-	-	-	-
(Financing Charges) - First Mortgage Bonds - Public	-	(400)	(463)	-	-	-	-	-	(625)	-	-	-	-
- Subordinated Debentures	-	(2,758)	-	-	-	-	-	-	-	-	-	-	-
- Common Stock	-	(1,379)	-	-	-	-	-	-	-	-	-	-	-
Prepaid Interest on Subordinated Debentures	-	(6,600)	-	-	-	-	-	-	-	-	-	-	-
Total Outside Funds	38,000	85,863	98,537	7,797	2,743	12	-	-	109,375	-	-	-	-
Balance - Plus (Minus) Cash	13,474	3,473	(24,385)	7,489	(3,808)	1,369	(4,493)	9,807	12,148	16,750	13,105	12,563	12,054
Cash - Beginning of Period (3)	6,710	20,184	28,657	4,272	11,761	7,953	9,322	4,829	14,636	26,784	43,534	56,639	69,202
- End of Period (3)	20,184	28,657	4,272	11,761	7,953	9,322	4,829	14,636	26,784	43,534	56,639	69,202	81,256

(1) From June 7 through October 31, 1956

(2) 1,928,183 shares from Founders @ $8 approx. equals $15,411,456
3,000,000 shares with Subord. Debs. @ $10 equals 30,000,000
4,928,183 $45,411,456

(3) Includes Government Securities

TRANS-CANADA PIPE LINES LIMITED

CASH FLOW PROJECTION - PLAN 2

($000s Omitted)

Schedule E
Plan 2

Cash Flow Projection - 12 Months Ended	10-31-56(1)	10-31-57	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63	10-31-64	10-31-65	10-31-66	10-31-67	10-31-68
Net Income	$ 196	$ 2,017	$ (577)	$(6,610)	$(1,328)	$ 1,380	$ 3,439	$ 7,374	$10,838	$ 7,100	$ 7,103	$ 7,105	$ 7,107
Add:													
Depreciation	-	-	1,989	8,328	8,619	8,951	9,203	9,360	13,316	13,316	13,316	13,316	13,316
Amortization of Debt Discount and Expense	-	92	133	133	133	133	133	133	158	158	158	158	158
Income Tax Accrual	-	-	-	-	-	-	-	-	2,683	6,426	6,428	6,430	6,433
Subordinated Income Note Interest Accrued - Not Earned or Paid in Current Year	-	-	-	107	429	-	-	-	-	-	-	-	-
Total Cash Operations	196	2,109	1,545	1,958	7,853	10,464	12,775	16,867	26,995	27,000	27,005	27,009	27,014
Less:													
Income Tax Paid	-	-	-	-	-	-	-	-	-	-	3,796	4,332	4,836
Subordinated Income Note Interest Paid for Prior Years	-	-	-	-	-	536	-	-	-	-	-	-	-
Retirement of First Mortgage Bonds - Public	-	-	-	-	-								
Retirement of First Mortgage Bonds - Crown Corporation	-	-	-	-	-	3,180	6,360	6,360	10,316	10,316	10,316	10,316	10,316
Retirement of Subordinated Debentures	-	-	-	-	-	-	-	-	-	-	-	-	-
Common Dividends	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Recurring Outgo	-	-	-	-	-	3,716	6,360	6,360	10,316	10,316	14,112	14,648	15,152
Balance - Plus (Minus) Cash	196	2,109	1,545	1,958	7,853	6,748	6,415	10,507	16,679	16,684	12,893	12,361	11,862
Less:													
Construction	33,171	107,150	92,121	3,091	13,572	5,400	8,990	-	-	-	-	-	-
Preliminary Const. Cost Paid at 6/7/56 included in construction	(7,974)	-	-	-	-	-	-	-	-	-	-	-	-
Acquisition of Niagara Line	-	-	5,400	-	-	-	-	-	-	-	-	-	-
Acquisition of Crown Corporation Property	-	-	-	-	-	-	-	-	113,025	-	-	-	-
Materials and Supplies (Operation and Maintenance)	-	2,000	2,000	-	-	-	-	-	-	-	-	-	-
Materials and Supplies (Gas for filling line)	-	-	249	-	-	-	-	-	-	-	-	-	-
Bond Interest Accruals in excess of Payments	(475)	(2,550)	(3,300)	(1,650)	-	-	-	-	-	-	-	-	-
Total Other Requirements	24,722	106,600	96,470	1,441	13,572	5,400	8,990	-	113,025	-	-	-	-
Balance - Plus (Minus) Cash	(24,526)	(104,491)	(94,925)	517	(5,719)	1,348	(2,575)	10,507	96,346	16,684	12,893	12,361	11,862
Add:													
Outside Funds - First Mortgage Bonds - Public	-	45,000	99,000	-	-	-	-	-	110,000	-	-	-	-
- Subordinated Debentures - Public	-	60,000	-	-	-	-	-	-	-	-	-	-	-
- First Mortgage Bonds - Crown Corporation	38,000	(38,000)	-	-	-	-	-	-	-	-	-	-	-
- Subordinated Income Notes - Founders	-	-	-	7,103	1,904	-	-	-	-	-	-	-	-
- Common Stock (2)	-	30,000	-	-	-	-	-	-	-	-	-	-	-
(Financing Charges) - First Mortgage Bonds - Public	-	(400)	(463)	-	-	-	-	-	(625)	-	-	-	-
- Subordinated Debentures	-	(2,758)	-	-	-	-	-	-	-	-	-	-	-
- Common Stock	-	(1,379)	-	-	-	-	-	-	-	-	-	-	-
Prepaid Interest on Subordinated Debentures	-	(6,600)	-	-	-	-	-	-	-	-	-	-	-
Total Outside Funds	38,000	85,863	98,537	7,103	1,904	-	-	-	109,375	-	-	-	-
Balance - Plus (Minus) Cash	13,474	(18,628)	3,612	7,620	(3,815)	1,348	(2,575)	10,507	13,029	16,684	12,893	12,361	11,862
Cash - Beginning of Period (3)	6,710	20,184	1,556	5,168	12,788	8,973	10,321	7,746	18,253	31,282	47,966	60,859	73,220
- End of Period (3)	20,184	1,556	5,168	12,788	8,973	10,321	7,746	18,253	31,282	47,966	60,859	73,220	85,082

(1) From June 7 through October 31, 1956

(2) 1,928,183 shares from Founders @ $8 approx. equals $15,411,456
3,000,000 shares with Subord. Debs. @ $10 equals 30,000,000
4,928,183 $45,411,456

(3) Includes Government Securities

TRANS-CANADA PIPE LINES LIMITED

Schedule F
Plan 1

BALANCE SHEET PROJECTION - PLAN 1

($000s Omitted)

Balance Sheet Projection At:	6-7-56	10-31-56	10-31-57	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63	10-31-64	10-31-65	10-31-66	10-31-67	10-31-68
Assets														
Gross Plant - First of Year	$ -	$ -	$ 33,171	$113,763	$238,069	$241,160	$254,732	$260,132	$269,122	$269,122	$382,147	$382,147	$382,147	$382,147
- Additions During Year	-	33,171	80,592	118,906	3,091	13,572	5,400	8,990	-	-	-	-	-	-
- Purchase of Niagara Line	-	-	-	5,400	-	-	-	-	-	-	-	-	-	-
- Purchase of Crown Corporation Property	-	-	-	-	-	-	-	-	-	113,025	-	-	-	-
- End of Year	-	33,171	113,763	238,069	241,160	254,732	260,132	269,122	269,122	382,147	382,147	382,147	382,147	382,147
Depreciation Reserve	58	58	58	859	9,195	17,822	26,781	35,992	45,360	58,684	72,008	85,332	98,656	111,980
Net Plant	(58)	33,113	113,705	237,210	231,965	236,910	233,351	233,130	223,762	323,463	310,139	296,815	283,491	270,167
Investments in Subsidiary Companies	156	156	156	156	156	156	156	156	156	156	156	156	156	156
Cash and Government Securities	6,710	20,184	28,657	4,272	11,761	7,953	9,322	4,829	14,636	26,784	43,534	56,639	69,202	81,256
Materials and Supplies (Operation and Maintenance)	-	-	1,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
Materials and Supplies (Gas for filling line)	-	-	-	229	229	229	229	229	229	229	229	229	229	229
Other Current Assets	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Prepaid Interest on Subordinated Debentures	-	-	3,575	275	-	-	-	-	-	-	-	-	-	-
Unamortized Debt Discount and Expense - First Mortgage Bonds	-	-	400	822	781	740	699	658	617	1,176	1,110	1,044	978	912
Unamortized Debt Discount and Expense - Subordinated Debentures	-	-	2,666	2,574	2,482	2,390	2,298	2,206	2,114	2,022	1,930	1,838	1,746	1,654
Common Capital Stock Expense	-	-	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379
Miscellaneous Equipment and Structures	252	252	252	252	252	252	252	252	252	252	252	252	252	252
Preliminary Construction Costs & Other Deferred Debits	8,336	362	362	362	362	362	362	362	362	362	362	362	362	362
Total Assets	$15,421	$54,092	$152,177	$251,556	$253,392	$254,396	$252,073	$247,226	$247,532	$359,848	$363,116	$362,739	$361,820	$360,392
Liabilities														
First Mortgage Bonds - Public	$ -	$ -	$ 45,000	$144,000	$144,000	$144,000	$140,820	$134,460	$128,100	$227,784	$217,468	$207,152	$196,836	$186,520
Subordinated Debentures - Public	-	-	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000
First Mortgage Bonds - Crown Corporation	-	38,000	-	-	-	-	-	-	-	-	-	-	-	-
Subordinated Income Notes - Founders	-	-	-	-	7,797	10,540	10,552	10,552	10,552	-	-	-	-	-
Common Stock (4,928,183 shs. at 10/31/63; 5,631,683 shs. at 11/1/63 (See Note))	1,928	1,928	4,928	4,928	4,928	4,928	4,928	4,928	4,928	5,632	5,632	5,632	5,632	5,632
Premium on Common Stock	13,483	13,483	40,483	40,483	40,483	40,483	40,483	40,483	40,483	50,331	50,331	50,331	50,331	50,331
Earned Surplus	-	196	1,756	2,135	(5,316)	(7,534)	(7,269)	(4,582)	2,084	13,264	20,395	27,528	34,663	41,801
Total Capitalization	15,411	53,607	152,167	251,546	251,892	252,417	249,514	245,841	246,147	357,011	353,826	350,643	347,462	344,284
Accrued Income Taxes Payable	-	-	-	-	-	-	-	-	-	-	3,650	4,196	4,710	5,193
Accrued Interest Unearned on Subordinated Income Notes	-	-	-	-	115	594	1,174	-	-	-	-	-	-	-
Other Current Liabilities	10	485	10	10	1,385	1,385	1,385	1,385	1,385	1,385	1,385	1,385	1,385	1,385
Deferred Credit - Tax Savings Applicable to Future Years	-	-	-	-	-	-	-	-	-	1,452	4,255	6,515	8,263	9,530
Total Liabilities	$15,421	$54,092	$152,177	$251,556	$253,392	$254,396	$252,073	$247,226	$247,532	$359,848	$363,116	$362,739	$361,820	$360,392
Capitalization Ratios														
First Mortgage Bonds				57.25%	57.17%	57.05%	56.44%	54.69%	52.04%	63.80%	61.46%	59.08%	56.65%	54.18%
Subordinated Debentures				23.85	23.82	23.77	24.05	24.41	24.38	16.81	16.96	17.11	17.27	17.43
Common Equity (Including Subordinated Income Notes)				18.90	19.01	19.18	19.51	20.90	23.58	19.39	21.58	23.81	26.08	28.39
Total				100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Note: Reflects conversion of $10,552,000 Subordinated Income Notes on November 1, 1963 into 703,500 shares of common stock @ $15 per share.

TRANS-CANADA PIPE LINES LIMITED

BALANCE SHEET PROJECTION - PLAN 2

($000s Omitted)

Balance Sheet Projection At:	6-7-56	10-31-56	10-31-57	10-31-58	10-31-59	10-31-60	10-31-61	10-31-62	10-31-63	10-31-64	10-31-65	10-31-66	10-31-67	10-31-68
Assets														
Gross Plant - First of Year	$ -	$ -	$ 33,171	$140,321	$237,842	$240,933	$254,505	$259,905	$268,895	$268,895	$381,920	$381,920	$381,920	$381,920
- Additions During Year	-	33,171	107,150	92,121	3,091	13,572	5,400	8,990	-	-	-	-	-	-
- Purchase of Niagara Line	-	-	-	5,400	-	-	-	-	-	-	-	-	-	-
- Purchase of Crown Corporation Property	-	-	-	-	-	-	-	-	-	113,025	-	-	-	-
- End of Year	-	33,171	140,321	237,842	240,933	254,505	259,905	268,895	268,895	381,920	381,920	381,920	381,920	381,920
Depreciation Reserve	58	58	58	2,047	10,375	18,994	27,945	37,148	46,508	59,824	73,140	86,456	99,772	113,088
Net Plant	(58)	33,113	140,263	235,795	230,558	235,511	231,960	231,747	222,387	322,096	308,780	295,464	282,148	268,832
Investments in Subsidiary Companies	156	156	156	156	156	156	156	156	156	156	156	156	156	156
Cash and Government Securities	6,710	20,184	1,556	5,168	12,788	8,973	10,321	7,746	18,253	31,282	47,966	60,859	73,220	85,082
Materials and Supplies (Operation and Maintenance)	-	-	2,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
Materials and Supplies (Gas for filling line)	-	-	-	249	249	249	249	249	249	249	249	249	249	249
Other Current Assets	25	25	-	25	25	25	25	25	25	25	25	25	25	25
Prepaid Interest on Subordinated Debentures	-	-	3,575	275	-	-	-	-	-	-	-	-	-	-
Unamortized Debt Discount and Expense - First Mortgage Bonds	-	-	400	822	781	740	699	658	617	1,176	1,110	1,044	978	912
Unamortized Debt Discount and Expense - Debentures	-	-	2,666	2,574	2,482	2,390	2,298	2,206	2,114	2,022	1,930	1,838	1,746	1,654
Common Capital Stock Expense	-	-	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379
Miscellaneous Equipment and Structures	252	252	252	252	252	252	252	252	252	252	252	252	252	252
Preliminary Construction Costs and Other Deferred Decits	8,336	362	362	362	362	362	362	362	362	362	362	362	362	362
Total Assets	$15,421	$54,092	$152,634	$251,057	$253,032	$254,037	$251,701	$248,780	$249,794	$362,999	$366,209	$365,628	$364,515	$362,903
Liabilities														
First Mortgage Bonds - Public	$ -	$ -	$ 45,000	$144,000	$144,000	$144,000	$140,820	$134,460	$128,100	$227,784	$217,468	$207,152	$196,836	$186,520
Subordinated Debentures	-	-	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000
First Mortgage Bonds - Crown Corporation	-	38,000	-	-	-	-	-	-	-	-	-	-	-	-
Subordinated Income Notes - Founders	-	-	-	-	7,103	9,007	9,007	9,007	9,007	-	-	-	-	-
Common Stock (4,928,183 shares at 10/31/63; 5,528,683 shares at 11/1/63 (See Note))	1,928	1,928	4,928	4,928	4,928	4,928	4,928	4,928	4,928	5,529	5,529	5,529	5,529	5,529
Premium on Common Stock	13,483	13,483	40,483	40,483	40,483	40,483	40,483	40,483	40,483	48,889	48,889	48,889	48,889	48,889
Earned Surplus	-	196	2,213	1,636	(4,974)	(6,302)	(4,922)	(1,483)	5,891	16,729	23,829	30,932	38,037	45,144
Total Capitalization	15,411	53,607	152,624	251,047	251,540	252,116	250,316	247,395	248,409	358,931	355,715	352,502	349,291	346,082
Accrued Income Taxes Payable	-	-	-	-	-	-	-	-	-	-	3,796	4,332	4,836	5,309
Accrued Interest Unearned on Subordinated Income Notes	-	-	-	-	107	536	-	-	-	-	-	-	-	-
Other Current Liabilities	10	485	10	10	1,385	1,385	1,385	1,385	1,385	1,385	1,385	1,385	1,385	1,385
Deferred Credit - Tax Savings Applicable to Future Years	-	-	-	-	-	-	-	-	-	2,683	5,313	7,409	9,003	10,127
Total Liabilities	$15,421	$54,092	$152,634	$251,057	$253,032	$254,037	$251,701	$248,780	$249,794	$362,999	$366,209	$365,628	$364,515	$362,903
Capitalization Ratios														
First Mortgage Bonds				57.36%	57.25%	57.12%	56.26%	54.35%	51.57%	63.46%	61.14%	58.77%	56.35%	53.89%
Subordinated Debentures				23.90	23.85	23.80	23.97	24.25	24.15	16.72	16.87	17.02	17.18	17.34
Common Equity (Including Subordinated Income Notes)				18.74	18.90	19.08	19.77	21.40	24.28	19.82	21.99	24.21	26.47	28.77
Total				100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Note: Reflects conversion of $9,007,000 Subordinated Income Notes on November 1, 1963 into 600,500 shares of common stock @ $15 per share.